DOCUMENT RESUME

ED 246 640 EC 170 036

AUTHOR Mick, Delores Bell
TITLE Assessment Procedures and Enrollment Patterns of Hispanic Students in Special Education and Gifted Programs. Final Report. January 1, 1981-April 30, 1982.
INSTITUTION Ohio State Univ., Columbus. Research Foundation.
SPONS AGENCY Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE Jun 82
GRANT G008100031
NOTE 247p.; Ph.D. Dissertation, Ohio State University. For a paper summarizing this report, see ED 235 238.
PUB TYPE Dissertations/Theses - Doctoral Dissertations (041) -- Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC10 Plus Postage.
DESCRIPTORS *Disabilities; Elementary Secondary Education; Enrollment Trends; *Gifted; *Hispanic Americans; Mexican Americans; Puerto Ricans; *Student Evaluation; *Student Placement; *Test Bias

ABSTRACT

The study examined issues involved in nondiscriminatory assessment and special education placement of Hispanic exceptional students. Literature is reviewed on three aspects: proportionate representation of Hispanic students in special and gifted placements, assessment procedures used (specifically, modifications and alternatives in testing), and major differences among three major Hispanic subcultures (Mexican American, Puerto Rican, and Cuban American). The development and revision of a 35-item questionnaire on nondiscrimination in evaluation for Hispanic students and on proportionate numbers in special and gifted programs are described along with information on its completion by 101 administrators of special education in four states (Texas, New Mexico, Florida, and Massachusetts), and two cities (Philadelphia and New York). Findings are discussed in terms of Hispanic enrollment patterns and protection in evaluation procedures (with summaries of such accommodations as those for language dominance and language proficiency, culture fair tests, criterion referenced measures, and activities to improve Hispanic students' test taking skills). Among conclusions reported are that contrary to findings of other research, a majority of local educational agencies proportionately enrolled Hispanic students in special education as a whole, and to a lesser extent, in programs specifically for learning disabled and educable mentally retarded students; Hispanic students were grossly underenrolled in gifted/talented programs; there were differences in subcultures; and the majority of administrators frequently made adaptations in assessment procedures to ensure protection in evaluation. (CL)

ED246640

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ASSESSMENT PROCEDURES AND ENROLLMENT PATTERNS OF HISPANIC STUDENTS IN SPECIAL EDUCATION AND GIFTED PROGRAMS

A Dissertation by
Delores (Lori) Bell Mick

Project Title:

REPRESENTATION OF HISPANIC STUDENTS IN SPECIAL EDUCATION AND GIFTED PROGRAMS IN FIVE STATES: A DESCRIPTIVE STUDY

Frederick Staub, Principal Investigator

For the Period
January 1, 1981 - April 30, 1982

DEPARTMENT OF EDUCATION
Grants and Procurement Management Division
Washington, D.C. 20202

Grant No. G008100031
CFDA No. 34.023A

June, 1982

EC170036

ASSESSMENT PROCEDURES AND ENROLLMENT PATTERNS OF HISPANIC STUDENTS IN SPECIAL EDUCATION AND GIFTED PROGRAMS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

By

Delores (Lori) Bell Mick, B.A., B.A., M.A.

* * * * *

The Ohio State University

1982

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ACKNOWLEDGEMENTS

A special thank you to W. Frederick Staub, advisor, who piqued my curiousity regarding the topic of the study, and who provided just the right amount of direction throughout my doctoral program; and to Thomas M. Stephens, whose influence on my personal philosophy of the instruction of exceptional children is considerable, and to Aristóbulo Pardo V. whose spirit of humanism combined with a quest for excellence often inspired me.

Appreciation is also extended to the Administrators of Special Education who took time to respond to the questionnaire, providing evidence of their genuine concern in the implementation of sound assessment procedures for the Hispanic student. Gratitude is expressed to my colleagues in the Virginia Department of Education for their interest in my studies, and for their willingness to share my workload. Also thanks go to Rob Tripp, computer programmer genius, to the fifteen field-reviewers who carefully and thoughtfully critiqued the instrument, to friends and colleagues at The Ohio State University, especially to Marie Oplesch for her careful reading of the many drafts of the questionnaire, and to Bernie; editor, stylist, and typist whose air of confidence helped me in subtle, yet important ways.

To my husband Harold, a loving thank you for acting as my confidant, statistic teacher, colleague, and dearest friend; in particular, for your willingness to take a year's leave of absence (without pay) in order to follow me to Columbus, Ohio and provide a warm, safe and happy home for us. And to our first born son, Gary, a special thank you for your supreme confidence in "Mom", and to our last born son, Steven, thanks for all your assistance in the coding, recording and stamping of endless questionnaires; a task that built a certain comradarie between us, and finally to my brother-in-law, Nels, for your genuine interest in the study.

A loving tribute goes to Mother and Dad Bell, to whom this dissertation is dedicated. I thank them for instilling in me the underlying assumption that, with hard work one can do anything. Their love and interest in my life is a part of my mystique of "Family."

Acknowledgement goes to the U. S. Department of Education for supporting in part, the study through Student Research Grant (#G008100031). Although no official approval is to be inferred, the grant monies assisted in the development of a more comprehensive study than would have been possible through personal, financial resources.

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GRANTS AWARDED AND RESEARCH CONDUCTED

1. Student Research Grant (#G008100031) U. S. Department of Education: Title: Assessment Procedures and Enrollment Patterns of Hispanic Students in Special Education and Gifted/Talented Programs, 1981-82.

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Chapter 1

INTRODUCTION

Hispanic Americans represent the most rapidly growing minority in the United States; indeed in Chicago public schools Hispanic student enrollment now exceeds Anglo enrollment (Banas, December 31, 1981). While increasingly more individuals of Hispanic origin are exerting power and influence in decision-making arenas, the fact still remains that in the nation as a whole, the Hispanic student is more likely to be enrolled below grade level, drop out of school, and score lower on standardized tests than his/her Anglo counterpart (Brown, Rosen, Hill, & Olivas, 1980). Reasons for these conditions are complex; however, it is clear that most standardized tests of ability and achievement are Anglocentric in nature, therefore test results tend to underestimate the abilities and ignore the strengths of the culturally different student (Mercer, 1977, p. 157). The consequence of such test results has been in part, to deny the Hispanic student equal access to education programs. While this denial may take many forms, one manifestation may be that of over or underrepresentation of Hispanic students in special education or gifted/talented programs.

Background of the Problem

Information regarding the enrollment patterns of Hispanic students in special education and gifted/talented programs has been often inconsistent and conflicting. On the one hand, the overwhelming evidence indicates that Hispanic students have been significantly overrepresented

in special education in general and in programs for the mentally retarded in particular (Mercer, 1971; Bryden, 1974; Oakland & Laosa, 1977; Morris, 1977; Cohen, 1975; The Civil Rights Memorandum, 1970). Testimony from specific court cases provided further documentation to support this general assumption (Arreola v. Board of Education, 1968; Diana v. State Board of Education, 1970; Larry P v. Wilson Riles, 1972).

National surveys such as the Coleman Report (1966), and the Civil Rights Survey (1970) provided data bases for influential educators to speak out at national association meetings and refereed journals, supporting the overrepresentation theme. For example, Dunn's (1968) pivotal paper accusing the Special Education community of labeling a large number of minority students as "retarded," who were primarily children of limited English-speaking ability (p. 5) was echoed in Gerry's report (1973) in which he concluded that Mexican-American students were systematically overrepresented in classes for the mentally retarded in Southwestern states. And professionals of Hispanic background repeated the overrepresentation motif (Castañenda, 1976; Carter & Segura, 1979; Martinez, 1977; Bernal, 1977).

While it would be easy to generalize that Hispanic students are overrepresented in special education programs, it would also be misleading. In 1979, evidence began to emerge which forced educators to question this assumption. Edward Martin, then U. S. Deputy Education Commissioner, commented that the Office of Special Education and Rehabilitative Services (OSERS) was not only examining the problem of overrepresentation of minority language children in special education but more importantly exploring the possibility that such students

were underrepresented in special education (Education of the Handicapped Newsletter, November 7, 1979, p. 6).

A clear cut case of underrepresentation of Hispanic students in special education was detailed in the Education of the Handicapped Law Report (June 22, 1979). The Massachusetts Division of Special Education, State Department of Education, alleged that within certain special education programs in the Holyoke Public Schools, there existed a pattern of assignments for Black and Hispanic students which was substantially disproportionate to the distribution of Anglo students. Data submitted to the hearing officer, showed that Hispanic students in Holyoke were significantly underenrolled in special education in general and in the least restrictive programs in particular (p. 272).

On the heels of the hearing in Massachusetts, the Office for Civil Rights submitted a similar allegation against the Philadelphia school district. The Education Law Center, in turn, filed a Section 504 complaint against the Philadelphia schools. The allegation noted that 5.7% of the 257,942 Philadelphia school children were receiving full-time special education; of that total school enrollment, 14,138 were of Hispanic background, yet only 3.15% of these children were receiving special education services.

> There is no reason to believe that the percentage of Hispanic children who are in need of Special Education services is not approximately the same as it is for the entire school population (quoted from the Education of the Handicapped Newsletter, February 27, 1980, p. 4).

And contrary to either the overrepresentation or underrepresentation conclusion, a Civil Rights Survey (1980), conducted by Killalea Associates, for the purpose of collecting data from the fifty states regarding the

education status of children in elementary and secondary schools, concluded that even though Hispanic students were significantly underenrolled in programs for the gifted or talented, they were enrolled in special education consistent with their representation in the total school population. The question then of proportionate number of Hispanic students in special education apparently has three different answers: overenrollment; underenrollment and, enrollment consistent with their representation in the total school population.

Nondiscriminatory Assessment

In seeking explanations for the conflicting conclusions, two points became increasingly clear throughout the review of the literature: firstly, that an examination of Hispanic enrollment patterns in special education and gifted programs should not be separated from accommodations and alternatives made to ensure nondiscriminatory assessment for the Hispanic student.

For the present study, assessment was defined as the collection of information for the purposes of making educational decisions about students. Depending upon the individual state, this information usually included health, sociocultural, and psychoeducational data. In order to provide protection in evaluation procedures for the culturally or racially different student (Public Law 93:380) numerous modifications have been suggested in the literature. Some of these modifications include: the use of pluralistic assessments (Mercer, 1977); ethnicity matching (Mishra, 1980); the assessment of the language dominance and proficiency of the Hispanic student (Oplesch & Genshaft, 1981; Bernal,

1977); the translation of intelligence tests into Spanish (Roca, 1955; Morris, 1977); the use of an interpreter or local, ethnic norms for scoring (Ulibarri, 1978). Other types of tests have been frequently proposed as important in the assessment process; such as culture-fair tests (Anastasi & Cordova, 1953), criterion-referenced measures (Samuda, 1975; Mowder, 1980), and nonverbal portions of more comprehensive tests. More recently, educators hypothesized that decision-making committees should include professionals of the matched minority of the student in order to reduce bias at decision-making points (Ysseldyke, 1979).

While there were a plethora of position papers discussing the importance of using selected accommodations for the Hispanic handicapped student, the investigator was unable to find a research study which set out specifically to determine what differences if any, the use of any one or more of these accommodations made in the enrollment patterns of Hispanic students in special education or gifted/talented programs. For example, if a local school district always used criterion-referenced measures, would their enrollment patterns vary from those of a school district who never used criterion-referenced tests? Essentially then, the focus of the study evolved out of that vital question, and centered on the collection of data for the purpose of describing enrollment patterns of Hispanic students in special education as a whole, and specifically in programs for the educable mentally retarded, specifically learning disabled and gifted. These enrollment data were then crosstabulated with assessment procedures in an effort to seek relationships between accommodations and enrollment patterns.

The second point which consistently surfaced as the writer sought explanations for inconsistencies in the representation issue, was that of the possible barrier to the accurate collection of data under the general term of "Hispanic," therefore, a secondary, yet important part of the present survey was the collection of data in such a manner so as to describe generally, differences and similarities among the three subcultures of Cuban-American, Mexican-American and Puerto Rican students.

Purposes of the Study

The purposes of the study were: (1) to describe the enrollment patterns of Hispanic American students in special education and gifted/talented programs in the cities of New York and Philadelphia and the states of New Mexico, Texas, Florida, and Massachusetts; (2) to collect information regarding the frequency of use of specific modifications and alternatives implemented by Local Education Agencies to ensure nondiscriminatory assessment for the Hispanic student; (3) to delineate the composition of decision-making committees; (4) to describe the level of Hispanic parental involvement in their child's educational program and; (5) to determine if there were relationships among the assessment variables described and the respective enrollment patterns of Hispanic students. Contrary to most previous national surveys in special education, this descriptive research was designed, inasmuch as was feasible, to maintain separate data on the three Hispanic subcultures of Cuban-Americans, Puerto Ricans, and Mexican-Americans.

Research Questions

1. What is the proportionate representation of Hispanic students in special education and gifted programs in the four states of New Mexico,

Texas, Florida, and Massachusetts, and the cities of New York and Philadelphia?

A. Do differences in enrollment data vary according to whether the Hispanic students are of Cuban, Mexican, or Puerto Rican descent?

B. How do the findings of the study compare with the national incidence rate?

2. With what frequency do Local Education Agencies implement the following modifications or alternatives in order to provide protection in evaluation procedures for the Hispanic student?

A. Use of a language dominance or language proficiency test

B. Use of culture-fair tests

C. Use of criterion-referenced measures

D. Use of pluralistic assessment measures

E. Use of subscales from more comprehensive tests

F. Matching of examiner to examinee in ethnicity or language

G. Use of an interpreter during the testing situation

H. Use of available intelligence tests in Spanish

I. Use of local, ethnic norms for scoring

J. Place emphasis on the improvement of test-taking skills

3. With what frequency do decision-making committees include a professional of Hispanic background? Are there similarities or differences among subcultures?

4. What is the relationship between the frequency of use of selected nondiscriminatory assessment procedures and the representation

of Hispanic students in special education, and more specifically in programs for the educable mentally retarded, learning disabled or gifted/talented?

A. Is there a significant relationship between assessment and subcultures?

B. Is there a significant relationship between the size of Local Education Agencies and representation in certain education programs?

5. What is the level of participation of Hispanic parents in their child's special education program? Are there similarities/differences among the three subcultures?

6. What is the level of involvement of State and Local Agencies in the development of information for Hispanic parents written in Spanish?

7. What changes in the assessment process for the Hispanic student are suggested by Administrators of Special Education?

Significance of the Study

Even though public education today is plagued by declining enrollment, there are growing numbers of Black, Hispanic and Asian students in the public schools. In many cities minorities are in the majority (Francis & Anstrom, 1981). These minority students have the right to an equal education opportunity, including the assurance of nondiscriminatory assessment procedures. To date, there has been a general assumption that Hispanic students are considerably overenrolled in special education. This assumption was questioned not only by this study, but by a few

isolated incidents in the Eastern states. A more accurate description of the numbers of Cuban-American, Mexican- American and Puerto Rican students enrolled in special education and gifted or talented programs was needed.

Public Law 94:142, The Education for All Handicapped Children Act specifies that all members of minority groups be given protection in evaluation procedures. While researchers and educators suggested specific modifications be made to existing tests or new measures be developed, that would minimize or eliminate bias in the evaluation process, little empirical evidence had surfaced to indicate how frequently any of the suggested modifications and alternatives were implemented. And more importantly, what differences, if any, the use of such procedures made in the number of Hispanic students receiving services in special education or gifted/talented programs.

It has been suggested that an important barrier to the accurate collection of information regarding enrollment patterns of Hispanic students in special education and gifted/talented programs was the strong inclination of educators and survey experts to group members of Hispanic subcultures together under the assumption that they represent a homogeneous group. While a plethora of position statements, both from Hispanic and non-Hispanic authors, testify to the distinctiveness of these subcultures, little empirical evidence had been compiled to support these statements. A reviewer is perplexed at the dearth of studies specifically designed to compare characteristics or abilities of Hispanic students who are from one of the major subcultures. This study assisted in filling that gap.

Two final areas of need that were partially met by the implementation of the study were the description of the composition of decision-making committees involved in the special education process, and the frequency of Hispanic parental involvement in their child's educational program. Few studies of empirical, comparative nature were uncovered in these areas.

Limitations of the Study

In all descriptive research, whether based on a complete census or a sample, there are errors and inaccuracies. The non-sampling errors included measurement error such as mistakes occurring in the questionnaire, ambiguity of terms used, incomplete or inaccurately completed questionnaires, lack of truthfulness or limited access to information on the part of the respondents. Also, mistakes may have been made in clerical coding, and editing or in the tabulation or programming of the computer for analysis of data.

The investigation used a complete enumeration design rather than a sample. Although considerable time, effort and substantial cost were expended to develop a complete enumeration frame, omissions were almost inevitable. The development of a complete enumeration listing was limited to the extent that State Education Agencies provided updated lists of Administrators of Special Education for their respective states. Additional limitation and possible chance for error, was in the development of a complete enumeration listing of Local Education Agencies in the participating states, who served 20% or more Hispanic student populations. This information was obtained from statistical reports

published by the respective states and numerous telephone calls for the purposes of amending, augmenting or clarifying the published data. In two instances, certain states, in order to provide the most recent enrollment information, either read the data over the telephone or in another incident, submitted microfiche to the investigator, therefore inaccuracies may have occurred in decoding.

Several factors related to time may have affected the responses. The point in time in which the questionnaire was mailed out to Local Education Agencies (September 5, 1981) must be considered as during the "sunrise" of the Reagan administration. The impact of the President's efforts to balance the budget, realign Federal dollars into block grants, rescind Federal regulations, repeal the Education for all Handicapped Children Act (P. L. 94:142) and dismantle the U. S. Department of Education, are as yet unknown, but most certainly influenced the return rate and responses of the participants. For example, one state in the sample population had elected to refuse Federal dollars under Public Law 94:142, while one city in the sample was under court-order to desegregate and feeling the impact of a teachers' strike. Possibly, such events in history influenced or limited the accuracy and truthfulness of responses.

The study was limited by the ability of the investigator to examine the cultural, social, ethnic and linguistic differences among the three subgroups of Cuban-Americans, Mexican-Americans and Puerto Ricans. A comprehensive and accurate analysis of these differences require the skills of a sociologist or anthropologist, competencies the investigator does not possess.

The respondents were requested to provide an "estimated" percentage of Hispanic students who were of Cuban, Mexican or Puerto Rican background. Accuracy was therefore dependent not only upon their truthfulness, but upon the ability to assess and be aware of the subculture of the Hispanic students served. (Specific limitations as related to response are discussed in Chapter 4.)

A final limitation was that there was no attempt to explain or explore the psychological or emotional reasons for the responses given in the questionnaire. In no way did the study seek to understand values or attitudes of the respondents, nor was it designed to state cause and effect relationships. The results of the study were descriptive and therein limited to the extent that the questionnaire obtained the information sought.

Definitions of Terms

Hispanic Americans. A person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of "race."

Cuban-Americans. A person living in the United States whose ancestry can be traced to the Island of Cuba.

Mexican-Americans. A person living in the United States whose ancestry can be traced to the Republic of Mexico.

Puerto Ricans. A person who is automatically a citizen of the United States whose ancestry can be traced to the Island of Puerto Rico.

Assessment. The process of collecting information for the purpose of making educational decisions about students.

Significant Over or Under Representation. The percentage of Hispanic students in Special Education and gifted programs is plus or minus 20% of the Hispanic students in the total school population. Essentially, a comparison of non-Hispanic to Hispanic enrollments.

Special Education. Special education means specially designed instruction, at no cost to the parent, to meet the unique needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction and instruction in hospitals and institutions.

Specific Learning Disability. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental asphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Administrators of Special Education. Those professionals appointed by the Local Education Agency who have responsibility for the administration of special education programs.

Handicapped Children. Those children evaluated in accordance with Public Law 94:142 Rules and Regulations who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped or have specific learning disabilities, and who because of these impairments need special education and related services.

Mentally Retarded. Mentally retarded means significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance.

Gifted or Talented. "Gifted or talented children means children, and whenever applicable, youth, who are identified at the preschool, elementary or secondary levels as possessing demonstrated or potential abilities that give evidence of high performance capability in areas such as intellectual, creative, specific academic, or leadership ability, or in the performing and visual arts, and who by reason thereof, require services or activities not ordinarily provided by the school."

Non-discriminatory Testing Procedure. Tests and other evaluation materials must be provided and administered in the child's native language or other mode of communication and have been validated for the specific purpose for which they are used.

Chapter 2

REVIEW OF THE RELATED LITERATURE

Introduction

The review of the related literature and research is divided into three sections. The first section surveys the available information on the proportionate representation of Hispanic students in certain special education and gifted programs and the implications of such placements. The second section, closely related to the first, describes and critically evaluates the assessment procedures utilized to judge the abilities of Hispanic students. In particular, this section focuses on the modifications adopted in the administration of the individualized intelligence test, and alternatives proposed to minimize or eliminate bias in the assessment process. And finally, the compelling rationale for the third section is to demonstrate that the collection of data under the term "Hispanic" may lead to inaccurate conclusions. The three major Hispanic subcultures, Mexican-American, Puerto Rican, and Cuban-American, are sufficiently diverse to suggest that information be aggregated and analyzed under each subgroup when attempting to answer the research questions posed in this study. The third section then, is an abbreviated look at the major differences among these three subcultures.

Hispanic Enrollments

A comprehensive review of the literature, including an examination of government documents, publications, surveys and reports, provides

antithetical responses to the question, what is the proportionate representation of Hispanic students in special education and gifted programs? On the one hand, the overwhelming evidence points to the overrepresentation of these students in special education in general, and in programs for the educable mentally retarded in particular. On the other hand, information is beginning to surface which would indicate that Hispanic students are underenrolled in special education as a whole and the least restrictive programs in particular. And, contrary to both these responses, data from a recent Civil Rights Survey suggested that Hispanic students are proportionately represented in special education classes. This section will consider these three responses, beginning with overrepresentation.

Overrepresentation

One can generalize, without being simplistic, that the issue of overrepresentation of Hispanic students in classes for the educable mentally retarded (EMR) grew out of three arenas: the seminal research conducted by Mercer, actions in the Nation's courts, and position papers written by influential educators.

The seriousness of the overrepresentation issue first surfaced through the important, longitudinal study on mental retardation in an American community, directed by Jane R. Mercer (1965; 1971; 1973; 1975). The purpose of her research effort was to comprehend the extent and nature of mental retardation in Riverside, California. Two contrasting conceptual frameworks were used in this study: a clinical perspective and a social-system perspective. The pilot and subsequent research

covered about four years during the early sixties, and for an ensuing eight years a group of social scientists at Pacific State Hospital in California continued to study the process by which communities sort and label persons as mentally retarded. Mercer (1975) found:

> Classification systems based on standardized tests have systematically labeled a disproportionately large number of persons from minority groups as intellectually subnormal and a disproportionately small number as gifted. As a result of this practice, a disproportionately large number of minority children are assigned to educational programs that limit upward mobility, such as classes for the mentally retarded, the slow learner, and the 'basic' student. (pp. 130-131)

In the original study, 241 formal organizations, both private and public, were contacted and requested to name all the mentally retarded persons served by their respective institutions. Characteristics of mental retardation were also studied, and several hundred interviews were conducted. As a result, it was found that Anglos who made up 82% of the community population under 50, made up 53% of the retarded members in the community, while Mexican-Americans comprised 9% of the under 50 age group, and made up 32% of the retarded members in the community. And Blacks, who represented 7% of the under 50 age group, made up 11% of the retarded members in the community (Mercer, 1973, p. 78).

Of particular interest to educators is Mercer's initial indictment of the public school, which grew out of her discovery that more than any other formal organization, the public school labeled a disproportionately high number of persons as retarded. She reacted to these data by expanding the scope of her study to include an examination of the entire referral, assessment, and labeling process practices in the public

schools. She found that a representative number of Hispanic students were referred; however, following the administration of an intelligence test, a disproportionately high number of these students were then placed in classes for the retarded (p. 220).

A review of the intelligence test scores of several hundred students revealed that 47% of those students with IQs of 79 and under were Anglos, while 32.7% with IQs of 79 and under were Mexican-Americans. Contrary to what one would normally find in placement practice, she discovered that 49% fewer Anglo children were in classes for the EMR than would be expected from their representation in the total school enrollment. And, that the rate of placement for Mexican-American students was four times larger than their representation in the total enrollment (1973, pp. 53-79). These shocking findings were first made public in a paper presented by Mercer at the California Association of School Psychologists and Psychometrists (1965).

Now, more than 15 years later, it is difficult to put the Riverside study in perspective. Mercer is, without doubt, the most frequently quoted source in the overrepresentation dispute. She is also one of the few non-Hispanics whose work is referenced time after time in publications written by Hispanic authors. The end result of her research was to create an unrest in the Mexican-American community, awakening a long dormant feeling that Mexican-American children are more often labeled mentally retarded than either Blacks or Anglos. While the results of her longitudinal study are significant, and certainly controversial, the actions taken in the courts would exert far more influence on the public schools.

The first court decision in which intelligence tests figured prominently was Hobson v. Hansen 1967 (Jensen, 1979, p. 27). Julius W. Hobson, on behalf of his two children enrolled in the Washington, D. C. public schools, initiated action against Superintendent Dr. Carl F. Hansen and the school board, in an effort to prove that the tracking system resulted in a racial imbalance. Upper tracks were predominately composed of white students, while the lower track and basic (special) track were predominately Black. The defendents claimed that ability grouping was designed to provide differential educational opportunities to students of widely diverse abilities. The resulting racial imbalance, they argued, was an unavoidable coincidence. Supported by the Brown v. Board of Education (1954) decision, and evidence presented during the Hobson court proceedings, Judge J. Skelly Wright declared ability grouping or tracking systems to be illegal, and ordered them abolished from the Washington, D. C. schools.

Less famous, but certainly not less significant is the case of Arreola v. Board of Education (1968). Unlike the former case, the court concentrated not on test scores, but on the guarantee of procedural safeguards to parents of retarded children. While the Hobson case was being argued in Washington, the Chairman of the Mexican-American Political Association (MAPA) of Orange County, California, Ray Villa, was testifying before the California State Advisory Committee on Education. He detailed how Mexican-American students were being inaccurately labeled EMR. This label was determined, according to Mr. Villa, not because of authentic retardation, but because of the student's inability to communicate in

the English language (Mercer & Richardson, 1975, p. 489). In support of his accusation, Miguel Montes, a member of the State Board of Education brought charges before the Santa Ana school board. Attorneys in the national office for the right of the indigent, then filed a suit on behalf of certain Mexican-American students in Santa Ana, who had been placed in EMR classes. Placement, they contended, had occurred without parent permission and was based on IQ tests administered in English. The plaintiffs further contended that the EMR programs were dumping grounds for Mexican-American students. The Arreola case, settled without a definitive outcome, became the foundation for Public Law 93:380 which ensured procedural safeguards to parents of any suspected or eligible handicapped child.

While the local education agencies in California were attempting to implement the Arreola decision, the landmark case of Diana v. State Board of Education (1970) was introduced. The plaintiffs, nine Mexican-American students and their parents, argued that their children had been placed in EMR classes on the results of an intelligence test administered in English and designed to draw upon experiences from the Anglo middle-class culture. They further claimed that the label of EMR denied them their right to an equal education opportunity. A potent factor in the presentation of the evidence was the court's successful effort to show that the label of EMR is not only a stigma to all students but that it delivers more harm to students erroneously so labeled than to those who legitimately fall into the category. Such a misjudgment violates a student's basic right to "due process" and

"equal protection" under the Fourteenth Amendment of the Constitution of the United States. The case of Diana Martinez was finally settled when the California Department of Education consented to demand that all districts report and account for any significant ethnic disproportion in classes for the retarded, and to develop procedures to ensure that Mexican-American students would be evaluated in a nondiscriminatory manner.

Possibly the most significant case in the area of evaluation and subsequent labeling of minority children is the Larry P. v. Wilson Riles (1972) in which the use of IQ test scores was prohibited in the placement of students into EMR classes. The plaintiffs, six San Francisco Black students, wished to enjoin the school district from administering intelligence tests for purposes of determining eligibility for classes of the mentally retarded. They first had to demonstrate that Blacks were overrepresented in such classes, and secondly, to prove that IQ test results were a primary criterion used in the assessment process. Evidence was presented to show that Black students made up only 25% of the total enrollment, but constituted 66% of the students enrolled in EMR classes (p. 1307). The defendants argued that the IQ test was not the only component used in the assessment process and at any point parents had the right to refuse further assessment or placement. After several months of testimony, Judge Peckham (1972) set forth his decision:

> This court is left to conclude, then, that the prerequisites to shifting the burden of proof to the defendants to justify the use of IQ tests are present in this case. . . . Defendants do not seem to dispute the evidence amassed by plaintiffs to demonstrate that the IQ tests in fact are culturally biased. Indeed, defendants have stated that they are merely awaiting the development of what they expect will be a minimally biased test. . . . Accordingly, it is hereby ORDERED that defendants be restrained from placing black students in classes for the educable mentally retarded on the basis of criteria which place primary reliance on the results of IQ tests as they are currently administered, if the consequence of use of such criteria is racial imbalance in the composition of such classes. (p. 1315)

In 1979, Judge Peckham made permanent the 1972 ban he had imposed on the use of standardized intelligence tests for placement into classes for the retarded.

Unlike the decision of Judge Peckman, a fellow colleague and U. S. District Court Judge, John Grady of Chicago, issued the opposite opinion, stating that IQ tests are not culturally biased and would rarely result in misplacement of students in EMR classes (Education for the Handicapped, July 16, 1980). He reasoned that intelligence tests, when administered by qualified psychologists, would not be discriminatory for the appropriate placement of students in classes for the retarded. Thus, the matter remains unsettled and the dispute continues.

If social scientists generally agree that mental ability is normally distributed in the population, even though this ability may not be manifested in achievement, developed skills, or occupational success (Jensen, 1979, p. 95) when a disproportionately high number of minority students are placed in classes for the retarded, the question of test bias is raised. Thus, influenced by the Mercer study and supported by court decisions, prominent educators expressed their positions on the over-representation issue in numerous publications.

Controversial and occasionally iconoclastic, Dunn (1968) attacked the established belief that self-contained special education classes were justifiable. His undisguised indignation regarding the labeling processes and segregation of minorities into slower tracks of education is apparent:

> In my best judgement, about 60-80 percent of the pupils taught by special education teachers are children from low status background, including Afro-Americans, American Indians, Mexican and Puerto Rican Americans: those from nonstandard English speaking, broken, disorganized, and inadequate homes; and children from other non-middle class environments. It is my thesis that we must stop labeling these deprived children as mentally retarded. Furthermore, we must stop segregating them by placing them into our allegedly special programs. (1968, p. 5)

And Mercer, partly responsible for and cognizant of the changing mood of the country, published scholarly articles and spoke at many prestigious association meetings, citing the data that she had compiled during her longitudinal research conducted in Riverside.

More restrained than Mercer, but certainly not less significant, is the position paper written by Gerry (1973).* He based his information upon the research conducted by the Civil Rights Commission, who reported that in five Southwestern states, Mexican-Americans and Blacks were systematically overrepresented in classes for the mentally retarded.

Resting on the Civil Rights study and the Coleman comprehensive report, Samuda (1975) focused on problems in the assessment process for minority students:

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*From Oakland and Phillips "Cultural Myopia."

> The overrepresentation of minority students in the lowest ability classes of elementary and secondary schools is an observable and easily documented fact. The classes for slow learners, the educable mentally retarded and the mentally retarded house significantly greater proportions of black and Hispanic students than white students. (p. 113)

Other prominent Hispanic educators and psychologists such as Castaneda (1976), Carter and Segura (1979), Gonzalez (1974), and Martinez (1977) repeated the overrepresentation theme, while Olemedo (1976) accused the American Psychological Association of insensitivity to the problem (p. 11).

Bernal (1977) seems mild in comparison to Dunn (1968) but he most eloquently speaks for the Hispanic as he discusses the state-of-the-art in the assessment procedures presently implemented for minority groups:

> Chicanos and Hispanics have become victims of test abuse and test misuse . . . furthermore whereas IQ and related tests have served to diagnose disproportionately large numbers of Chicano children into mentally retarded or language and learning disability categories, these instruments have not been especially helpful in identifying children at the other end of the ability spectrum, the gifted. (p. 71)

Is there then no information to refute the overwhelming evidence that Hispanic students are overrepresented in special education in general and in classes for the EMR in particular?

Proportionate Representation

While it would be convenient to conclude that Hispanic students are overrepresented in special education, it would also be misleading. According to a Civil Rights Survey (April, 1980) Hispanic students are proportionately represented in special education classes. The Office for Civil Rights contracted with Killalea Associates to conduct a survey which summarizes the current status of enrollment in the nation's

elementary and secondary schools on the basis of race, ethnicity, sex or handicapping conditions. Data from this survey were also compiled by Brown et al. (1980) in an effort to highlight education of Hispanic students.

The survey provided tabulation on twelve topics, including a section reporting the participation of minority groups in special education and gifted programs. The results were based on responses to questionnaires and represented collected data from more than 6000 school districts, randomly selected as a sample of the approximately 11,500 districts that enroll at least 300 pupils. The information made it possible to relate the proportion of students enrolled in special education programs to their representation in the total school enrollment.

In the nation as a whole, for instance, Hispanic students represent 7% of the total enrollment and make up 6% of the total special education enrollment. Hispanic students represent 5% of the educable mentally retarded students, 7% of the trainable mentally retarded, 6% of the seriously emotionally disturbed, 8% of specific learning disabled and 6% of the speech enrollment and comprise 5% of the gifted enrollment. In sum, the Office for Civil Rights concluded that the number of Hispanic students enrolled in special education was consistent with their total school enrollment in the nation. On the other hand, if one examines data collected on individual states representative of the Cuban-Americans (Florida), Mexican-Americans (New Mexico, and Texas), and Puerto Ricans (New York), a different set of inferences may be drawn. Worthy of note is that in each state the enrollment of Hispanic students in programs for the educable mentally retarded is diminishing. An hypothesis for this shift is presented by the following researchers.

Carter and Segura (1979, p. 168) suggest that the change in proportionate representation is merely a relabeling process. And Tucker (1980) explained the trend as merely a relabeling from EMR to learning disabled. He sampled several school districts in the Southwestern states from the years of 1970-1977. Six questions acted as the bases for his study. Through the responses he concluded that there had been a rapid growth in all of special education; however, from 1970 on, Hispanic students had little increase in programs for the EMR, but a considerable increase in programs for the learning disabled. He summarized his study with the serious accusation that the old label of EMR has simply shifted to the new, more socially acceptable label of learning disabilities.

Underrepresentation

The possibility that Hispanic students have been underrepresented in special education programs has, until recently, not been addressed. That these students were significantly underenrolled in special education as a whole and in the less restrictive programs in particular became the central issue in a hearing in an Eastern state.

Massachusetts alleged in Massachusetts Division of Special Education v. Holyoke Public Schools, 1979 (Education for the Handicapped Law Report, 1979), that within particular special education "models" used in Holyoke Public Schools, a disproportionate pattern of assignments existed for Black and Hispanic students. Hispanic students were significantly (range plus or minus 20% variance) underenrolled in special education in general and specifically underenrolled in Model 502.2 programs in particular; yet significantly overenrolled in Model 502.3 and 4 programs. By

law, Massachusetts does not label categorically, but these models generally refer to resource special education classes and self-contained special education classes, respectively. The former usually serves learning disabled students and the latter often serves educable mentally retarded or emotionally disturbed students. The court further noted the following:

> Hispanic students constituted 21.7% of the total school population but made up only 12% of the special education program. White students constituted 73.6% of the total school population and made up 81% of the special education program.

Holyoke took the position that the special education referral, assessment, and placement processes were properly administered, therein there was no reason to suggest that malpractices were occurring. They further claimed that the appropriate experts evaluated each student and placed him/her in special education through the development of the individualized education program (p. 279). Holyoke was unable to present a compelling case for the statistical disproportion, therefore it was found that the Holyoke school district had denied Black and Hispanic students equal educational opportunity. The Hearing Officer ordered that Holyoke should submit a remedial plan to eliminate such denial, effective for the 1979-1980 school year (p. 281).

The second underrepresentation instance occurred in Pennsylvania. The Education Law Center in Philadelphia filed a Section 504 complaint in July 1978, indicating that Philadelphia Public Schools had failed to identify, evaluate, and serve Hispanic students in special education programs. In February of 1980, Health, Education, and Welfare's Office for Civil Rights remitted a letter to the Education Law Center supporting

the Center's complaint. The Office for Civil Rights required that Philadelphia Public Schools develop adequate diagnostic procedures for evaluation, placement, and programming for the Hispanic student who needs special education services (Education for the Handicapped, February 27, 1980).

Although conclusions regarding proportionate representation of Hispanics in special education classes are equivocal, there is general agreement that Hispanics are underrepresented in programs for the gifted and talented. Mercer (1973; 1977) found that few Mexican-American students were labeled gifted. Her research indicated that the major problem was one of identification instruments and procedures. Bernal (1979), another respected researcher and test developer in the area of Hispanic gifted, found that only one in three gifted Hispanic students were identified by the traditional identification processes. Hispanic students are usually unable to reflect their giftedness in test scores.

The implications of under or overrepresentation in special education and gifted programs are serious indeed, and both extremes severely limit the access of Hispanic students to an equal education opportunity.

Implications

In order to be eligible for special education services, all students must go through assessment procedures which are multi-disciplinary in nature. Subsequent to a full evaluation, a review of the assessment components is performed by a multi-disciplinary team who then determines whether the student is eligible or not eligible for special education. An Individualized Education Program (IEP) is then developed in a

committee which includes the parents. What then is potentially harmful about these evaluation procedures and subsequent labeling processes?

The courts have shown that the stigma of the label "retardation" inaccurately given to a student, causes more harm than to the student who legitimately falls into the category. For many minority students the results of standardized tests do not reflect accurately their learning potential. When these inaccuracies are translated into labels, there is a violation of the "equal protection" and "due process" clause. In effect, the student is denied an equal education opportunity.

There are, however, less serious consequences, but equally dehumanizing. Some of these were noted by Judge Wright in his decision of Hobson v. Hansen (1968). Teachers, he warned, may underestimate real potential and consign students to a watered down curriculum. Labels may increase the danger of the self-fulfilling prophecy and ultimately lower the self-esteem of the student. And, Williams (1971) admonished that standardized tests serve to keep minority students from social mobility, denying them equal education and forces them to remain at a low socio-economic status all their lives.

Finally, if one accepts the axiom that ability is equally distributed among groups, one expects to find an equal distribution of students regardless of race or ethnicity in educational programs. One finds, however, that this is not the case for the Hispanic student. Although information regarding the numbers of Hispanic students in certain special education and gifted programs is often inconsistent and conflicting, there are, however, several general yet tentative conclusions to be drawn.

Mexican-Americans are overrepresented in programs for the educable mentally retarded and underrepresented in programs for the gifted and talented. Unlike Mexican-American students, Puerto-Rican students are proportionately represented in programs for the gifted (in New York state), while they are underrepresented in programs for the learning disabled. Cuban-American students in Florida are grossly underrepresented in programs for the gifted and talented (Civil Rights Survey, April, 1980, pp. 110 and 117). As a group, Hispanic students are more likely to be enrolled below grade level, drop out of school more frequently than either Blacks or Anglos, and score below the norming group on standardized tests (Education of the Handicapped, May 21, 1980).

Evidence points to the general conclusion that current assessment procedures underestimate the ability and academic potential of the Hispanic student. The crucial question, therefore, and one that cannot be separated from the representation discussion, is what solutions have professionals proposed in order to ensure nondiscriminatory assessment for the Hispanic student?

Section Two

Modifications and Alternatives

Over the years psychologists, educators, and test developers have suggested various modifications and alternatives to ensure that assessment procedures are not racially or culturally discriminatory. Among these procedures have been translation, renorming, adding points to obtained scores, ethnicity matching of the examiner/examinee, and teaching the minority student how to take a test. In addition, during the past decade several new measures have been developed, such as culture-free and culture-fair tests, criterion-referenced measures, and pluralistic assessments. Possibly the most drastic modification suggested is the elimination of standardized testing with all minority groups. More recently, educators are giving attention to the decision-making orientation of professionals during the special education process and finally, the critical importance of determining the language dominance of the Hispanic student prior to any assessment. The first modification discussed, and the one that produced the most startling results, was that of translation.

Translation

Language is the principal avenue for the transmission of knowledge. It is obvious that if an intelligence test is administered to a student who does not understand the language in which it is administered, an invalid test score will result. In one stunning example of this premise, Diana, an eight-year old Mexican-American student, increased her IQ

performance score by 40 points when the same test was administered to her in Spanish by a Mexican-American psychologist. Morris (1977) found that when 47 Mexican-American students enrolled in educable mentally retarded classes were administered an IQ test in Spanish, their average score increased by 13 points. In an interview, a Philadelphia psychologist reinforced this finding:

> In my clinic, the average underestimation of IQ for the Puerto-Rican kid is 20 points . . . when we test in Spanish there's a 20 point leap immediately, 20 points higher than when he's tested in English.
>
> Puerto Ricans in the Continental U.S., 1976, p. 99

Partly due to the significant gains often achieved, direct translation of intelligence tests into Spanish appeared at one time to eliminate bias. There are, however, various reasons why mere translation may not minimize or eliminate bias.

The use of translation carries the implicit assumption that the student speaks one language well or exclusively. As Bernal (1977) pointed out, most Hispanic children mix the two languages. Because translation usually involves a formal, standard dialect, a student may score below her/his real potential in either language.

As early as 1934, Sanchez questioned the use of translation to eliminate bias. He suggested that equivalent words seldom exist in two languages. His comments were prescient in that later, more scientific methods of translation would find item difficulty a serious issue. Roca (1955) documented the difficulties he and his associates in the Department of Education in Puerto Rico encountered in their efforts to develop a Spanish version of the Wechsler Intelligence

Scale for Children (WISC, 1949). A primary problem surfaced as translators searched for words of similar frequency in both languages in order to insure item level difficulty. For example, the question "What do you call this finger?" to which the response is "thumb" is more difficult when translated into Spanish. A second problem, but equally significant, involves the cultural content. Items such as "Who wrote Romeo and Juliet?" had to be changed to "Who wrote Don Quijote?"

Mercer (1977) critizes translation simply because it destroys the applicability of using existing norms, while Drenth (1972) simply states that one cannot make use of the "same" test in two cultures. Chandler and Plakos (1970) found that when the Spanish version of the WISC, developed in Puerto Rico, was administered to a Mexican-American student, she/he often obtained a poorer test score in Spanish than when given the Anglo-specific English version. Test administrators often assume that homogeneity exists among the Hispanic populations. This assumption of language uniformity and cultural similarity is unfounded. Mexican-American Spanish differs considerably in vocabulary and pronunciation from Cuban-American or Puerto Rican Spanish. For example, the word "kite" may be translated as cometa, huila, volantîn, papalote, or chiringa, depending on the country of origin. The word "tostone" refers to a quarter or a half dollar for the Mexican-American, while to the Puerto Rican, it refers to a squashed section of a fried banana (DeAvila, 1976, p. 94).

The wise use of the translation modification is heavily dependent upon the level of language proficiency of the Hispanic student. Oplesch (1980) found that Puerto Rican students enrolled in an Ohio elementary school, did not attain lower scores (as was hypothesized) when tested on the WISC-R in English than when they were evaluated on the Escala de Inteligencia Wechsler Para Ninos. However, the Puerto Rican students achieved significantly higher scores on the performance scale than on the verbal scales, regardless of language.

While the translation of standardized measures into Spanish has considerable surface appeal, in reality because item level difficulty is changed and cultural differences are largely ignored, mere translation will not eliminate bias in the assessment process. In searching for other alternatives, some test developers have suggested the concept of simple renorming or adding points to obtained scores.

Renorming and Adding Points

Some critics claim that intelligence and other standardized tests should be based on local norms. Ulibarri (1978) states that "most of the administrators and educators who have had extensive experience in teaching bilingual-bicultural children know the futility of comparing local test results with the national norms . . . it is possible to develop local norms that fit the situation" (p. 49). In partial agreement with Ulibarri, Oakland and Matsuzek (1976) believe that the availability of both national and localized norms provides far better accuracy on the minority group test scores (p. 56).

In contrast to either Ulibarri or Oakland, Jensen (1979) believes that no real problems are resolved by using local norms. "It would be

much like having to contend with different currencies and exchange rates in going from one country to another. If tests are biased for some groups, in the population, the bias should be recognized rather than obscured by having separate norms for that group (p. 95). Bernal (1977) labels renorming and adding points both "malpractices", in that "renorming" appears to make the test better and it does not. "Adding points" to the obtained scores of the Hispanic student is a procedure developed to rectify certain abuses in the application of intelligence tests to minority persons. This procedure is basically a way of making low test scores more palpable but it does nothing to increase a test's ability.

Ethnicity Matching

Many studies have been conducted regarding the matching of race and examiner effects on the test performance of Black and white subjects (Oakland and Matsuzek, 1976, p. 60), while few studies have been confined to this topic with the Hispanic subject. One exception is the well-designed research done by Mishra (1980). A total of four examiners, two Anglos and two Mexican-Americans, administered two verbal subtests of the WISC and the colored form of the Raven's Progressive Matrices to 96 Mexican-American students. Mishra found that even though on two of the three subtests the Mexican-Americans performance was unaffected by examiner's matched ethnicity, Mexican-Americans scored significantly higher on the verbal tests on the WISC when administered by a Mexican-American examiner. Like Mishra, Garcia and Zimmerman (1972) found in a "bar pressing" test administered to Mexican-Americans, the match in ethnicity was a much stronger determiner of high levels of performance than whether Spanish or English was used.

The complex interaction of examiner and examinee in the testing situation makes it difficult to control all factors and to examine only the ethnicity matching variable. In contrast, research designed to increase test scores of Hispanic and Black students through test-training techniques provided quite unambiguous data.

Training Hispanic Students to Take Tests

All tests are culture-bound and depend on a number of skills that they do not wish to measure. Van der Flier (1972) concluded that test-taking skills must be overlearned before the unwanted test-skill variance is eliminated with Spanish populations. Some skills can be taught directly, such as discrimination between colors or how to use the machine scored answer sheet. The importance of the testee's familiarity with the type of test questions, the kind of logic used, and the element of being timed is important for the culturally different student (Gerry, 1973). In his dissertation, Bernal (1971) demonstrated that feedback regarding test performance significantly improved the Mexican-American test scores. More recently, Bernal (1977, p. 75) presented a convincing argument for the development of techniques which motivate the Hispanic student to engage the testing task. He cites the following as important:

1. Rapport building, including the use of the language dialect spoken by the students in informal settings, and an explanation of the purpose of the test.

2. Administering tests in small, easily supervised groups.

3. Coaching on the mechanics of test taking, guessing, etc.

4. Explaining the testing directions thoroughly in the language dialect of the students and encouraging questions to clarify points.

5. Warmup, including practice on items similar to those to be encountered on the test or subtest; group discussion of why each member of the group selected a particular response, and feedback. (p. 75)

The lack of test sophistication and poor emotional adjustment to the school testing situation were among the reasons cited by Anastasi and Cordova (1953) for the overall low scores of Puerto Ricans on the Cattell Culture Free Intelligence Test. Their most conspicious finding was the significant practice effect. The researchers suggested that the increase in test-taking skills and a clearer understanding of the directions and the purpose of the test caused the increased scores.

While the efforts to increase the test-taking skills of Spanish-speaking students have received little attention in the literature, researchers' attempts to develop culture-fair tests have enjoyed a rather long history and have been well publicized.

Culture-Free and Culture-Fair Tests

The movement to construct a culture-free test began with the proposal by Cattell in 1940 to seek a measure that would be free of cultural referrents so that the results would reveal the true ability of an individual. Implicit in this search was the belief that native intelligence could be separated from cultural factors. The quest for items and experiences which were free from cultural bindings soon proved futile, and the culture- "free" test movement shifted to the development of a culture "fair" test (Samuda, 1975, p. 133).

Culture-fair tests deemphasize factors such as verbal ability, test wiseness, and speed facility and in turn emphasize those experiences, knowledge, and skills common to all cultures. Some well-known culture-fair tests are the Leiter International Performance Scale, Raven's Progressive Matrices, and the Cattell's Culture-Fair Intelligence Test. In a scholarly critique of these and other such tests, Lawler (1978) noted that several tests, in particular the Raven's Progressive Matrices, require formal literate skills learned only in a school situation. He agreed with Ysseldyke's later research (1979, p. 152) in that there is also an absence of cross-cultural and predictive validity. Inasmuch as, there is no test which can be universally applied to all persons, the construction of culture-fair tests is declining (Oakland and Matuzek, 1976, p. 62). In contrast, the development of criterion-referenced measures continues to offer promise for the implementation of nondiscriminatory assessment with the Hispanic student.

Criterion-Referenced Tests

> Criterion-referenced testing represents the wave of future. . . . could help to revolutionize the teaching-learning process and assist educators and social scientists in taking one giant step for mankind.
>
> Samuda, 1975, p. 152

Norm-referenced tests reference the individual's score back to the group norm, while criterion-referenced tests reference the individual's score back to an absolute criterion. The purpose of the former is to compare a student's functioning with a group, whereas criterion-referenced tests are task specific and compare the child only to her/his own performance and absolute standard. These measures have two

useful purposes in evaluation; first,. to assess the student's entry levels prior to instruction and to evaluate the performance following instruction (Stephens, 1977, p. 233).

The use of criterion-referenced measures with Hispanic students is heartily endorsed by Mowder (1980). She designed a "dual-approach" model for nondiscriminatory assessment and suggested that as the first step a comprehensive multi-cultural assessment should be conducted. Subsequently, as a second level of assessment, she recommends the use of the criterion-referenced measures to delineate and articulate the goals and objectives for the Individualized Education Program (IEP). In a less enthusiastic vein, Duffey et al. (1981) suggest that while criterion-referenced tests are useful in the instructional setting, educators need to understand the often high cost in human and fiscal resources required to implement a mastery system (p. 430), nor do these measures resolve the issue of cultural biases inherent in the content of many tests (Condon et al., 1979, p. 150). Finally, a caveat by Burry (1979) suggested that even though criterion-referenced tests provide more accurate educational data, there is little information available on the use of these measures with the Hispanic student.

Pluralistic Assessment

> Pluralistic assessment is based on the view that the American society is characterized by cultural and structural pluralism . . . a multi-cultural approach to assessment will open up educational opportunities for Chicano children and redress the problem of overlabeling them as mentally retarded and underlabeling them as gifted.
>
> Mercer, 1977, pp. 157 and 159

Mercer and associates developed the System of Multicultural Pluralistic Assessment (SOMPA) as a outgrowth of her research in Riverside, California. The SOMPA uses existing tests but pluralistic norms. Predicated on three assessment models the instrument is designed as follows:

1. Medical Model: Fundamentally asks,"Is the child physically normally?"

2. Social System Model: Fundamentally asks, "Does the child's behavior meet social expectations in the school, the family, and peer group of which he/she is a part?"

3. Pluralistic Model: Socioculturally sensitive version of the general intelligence model; and asks, "How intelligent is the child?" "What potential for learning does the child have?"

The student received two IQ scores, a traditional one and a pluralistic adjusted score or Estimated Learning Potenial (ELP). To arrive at the ELP one needs to administer the Sociocultural Scales and the Wechsler Intelligence Scale for Children, Revised (WISC-R): other tests such as the Physical Dexterity, Bender Visual Motor Gestalt Test, Weight by Height, Visual Acuity, Auditory Acuity, and Health History Inventories, and the Adaptive Behavior Inventory for Children. Mercer is not without her critics. Goodman (1979), Brown (1979), and Clarizio (1979) contend that the SOMPA, even though translated into Spanish and normed on Mexican-Americans in California, does not assist in clarification of the meaning of "retardation" with the culturally different, nor will it increase prediction of actual school success for the minority group(s).

Goodman's concern is that human behavior is much too complex, too multi-dimensional, and erratic for one test to provide a significantly different direction. Mowder (1980) concedes that although by using the SOMPA sociocultural factors are controlled, the test does not assist in planning an educational program. Duffy et al. (1981) comment that such procedures cannot take into account the heterogeneity of any one ethnic group, while retaining predictive validity with the majority culture (p. 429).

Although Mercer notes that administration of the SOMPA is not difficult, indeed "does not require extensive retraining of existing personnel" (1979, p. 116), personal interviews with Ohio and Virginia school psychologists revealed that administration might take up to 12 hours. Calculations and conversions are further time consuming, even though Mercer (p. 116) contends that conversions necessary to arrive at the estimated learning potential require only about three minutes. The significance of the pluralistic measure is that by using a multiple normative framework, a more accurate description of the strengths and weaknesses of the Hispanic student may result. Not satisfied with any of the modifications or alternatives to tests, some critics have requested that a moritorium be placed on the standardized testing of minority students.

Should Intelligence Testing be Banned?

An angry Williams (1971) proposed that standardized testing procedures of Black and Hispanic children should be abolished, until valid, nondiscriminatory tests are developed. In defense of his position, he

noted that existing tests are demeaning to the culturally and linguistically different child because they inevitably hold up the Anglo as the normal group, and that such a comparison is bound to find any non-Anglo student "deficient" in some way. Morris (1977) in support of Williams, arrived at his conclusion to ban tests through a survey that he conducted for the purpose of collecting data on what modifications and alternatives had been implemented in order to minimize bias with the Hispanic student in the Southwestern states. He found that very little was being done to eliminate bias and from these data issued his demand for a moratorium.

Unlike either Morris or Williams, Cleary et al. (1975) feared that a ban might cause a more insidious bias. They point out that the abolishment of standardized tests would not result in an improvement of assessment but would only make the process more subjective. In agreement, Meeker and Meeker (1973) conclude that to administer IQ tests no longer is to deny teachers important information. Tests are more impersonal contends Jensen (1979), yet more individualized and objective than teacher made assessment (p. 49). Can a test be biased? Strictly speaking, according to Drenth (1972), it cannot, but only indicates differences among students. What can be biased, however, is the way the test results are used in making education decisions.

Decision-Making

In the recent literature regarding decision-making in nondiscriminatory testing, Professor and Director of the Institute for Research on Learning Disabilities, James E. Ysseldyke's name often appears (1979).

> Nondiscriminatory assessment entails several factors in complex interaction. As I noted earlier, our real concern should be with bias in the decision-making process and with abuse in the use of assessment data to make decisions about students. Abuse can occur in many different ways. First, abuse can result from the use of tests for purposes other than those for which they were designed. It can also result from comparisons of students to others who differ systematically in several characteristics. Third, abuse occurs when technically inadequate tests are used to collect data about students. It also occurs when investigators go beyond their data to infer or predict later academic difficulty. Bias on the basis of naturally occurring pupil characteristics occurs throughout the assessment process. Teachers differentially view objective child behavior when children are assigned deviancy labels. (p.159)

In essence when decisions are to be made regarding a member of a linguistically different group, then a member of the same group should participate in the decision points. At the very least, the multidisciplinary team should include participants who are aware of and familiar with the minority student's culture.

A possible trend in the search for fair assessment procedures is best demonstrated by Ysseldyke and others in their unflagging efforts to create an awareness in professionals of the critical points in the decision-making process. They believe that "Protection in Evaluation Procedures" (Public Law 94:142) infers a much broader concern than solely test fairness. The broader issue is to address how test information and other data were used to make decisions about pupils (Ysseldyke and Regan, 1980, p. 465).

It is difficult if not injudicious to specify a fixed approach to nondiscriminatory assessment for the Hispanic student. Clearly, no single measure, no one method nor standard modification will ensure the valid assessment of a minority child's educational potential. Yet, one concludes that the primary concern and the first step in the

assessment process is to determine the dominant language of the Hispanic student (Oplesch & Genshaft, 1981). This determination then sets the stage for the professional(s) to make the proper selections of available tests and the necessary modifications to ensure nonbias. From this comprehensive data base, all decisions regarding the educational program for the Hispanic student must be made with caution and with an understanding of and appreciation for the student's culture and language.

An important barrier to the accurate understanding of the Hispanic student is the proclivity of prominent educators to group members of the three major Hispanic subcultures together under the erroneous assumption that they represent a homogeneous group, and that the results of one investigation on one subculture may be generalized to all other Hispanic subcultures. The third and final section then, is an abbreviated exploration of the differences in educational achievement, acculturation levels, value preferences and socioeconomic status among the Cuban-Americans, Puerto Ricans and Mexican-Americans.

Section Three

Cuban-Americans, Mexican-Americans and Puerto Ricans

There are presently 14,605,883 persons of Hispanic origin in the United States (Roanoke Times and World News, April 17, 1981). Of this total, Mexican-Americans account for 60%, Puerto Ricans 15%, and Cuban-Americans 7%. The remaining 19% includes Central or South Americans and other persons of Hispanic origin (Brown et al., 1980, p. 5). For many years numerous methods have been suggested to identify Hispanic Americans. Since 1973, the U. S. Office for Civil Rights relied primarily on "visual identification" for its collection of data. After 1978, however, the method of "self-identification" has been used. The U. S. Census Bureau reported that the Hispanic population increased by 61% in the past ten years, while the number of Black Americans rose only 17%. If present growth rate continues, Hispanic persons will soon become the largest minority in the United States (Falcon, 1980).

Each state in the Union has some Hispanic residents, however, more than 75% of all Hispanics live in the five states of Florida, New Mexico, New York, Texas, and California. Mexican-Americans live primarily in the Southwestern states, large numbers of Cuban-Americans reside in Florida, while Puerto Ricans concentrate in the industrial Northwest, in particular New York City. Contrary to general opinion, most Hispanic families do not live in rural areas, with more than 85% residing in metropolitan sections of the country (Brown et al., 1980).

Not surprisingly, there has been considerable difficulty in settling upon a term or phrase which not only accurately describes persons of Spanish origin, but is not offensive to the minority cultures. Such terms as Spanish-speaking (Rodriguez, 1970), of Spanish-origin (Arce, 1976), Spanish surname, Hispanos and Latinos (del Olmo, 1981) appear in the literature. More recently, the Federal Interagency Committee on Education adopted the term "Hispanic" (Brown et al., 1980, p. 2). Frank del Olmo (1981) of the LA Times-Washington Post caustically assailed the new term:

> In all my years of living and working in Latino communities, I have never heard a Latino refer to himself as Hispanic. . . . in fact, if there is one positive thing about the emergence of 'Hispanic,' it's that both Chicanos and Mexican-Americans finally agree on something: They don't like to be called Hispanics. (p. F-3).

His criticism reflects the concern that the use of one term to identify persons of such diverse cultures promotes the implicit assumption that they represent a homogeneous group. The intent of this section is to demonstrate that such is not the case.

Education

There are clear differences in educational achievement among Mexican-Americans, Cuban-Americans, and Puerto Ricans. Persons of Cuban origin have a significantly higher educational level than persons of either Mexican or Puerto Rican backgrounds. In 1976, 26% of the Cuban-Americans were enrolled in college as compared to 11% of the Mexican-Americans and 10% of the Puerto Ricans (Brown et al., 1980, p. 198).

This writer has suggested that misleading conclusions have been drawn from the analysis of data collected under the general term of

"Hispanic." One of the more startling examples of this claim is in the area of Hispanic high school non-completion rates. The Education of the Handicapped Biweekly Newsletter (April 23, 1980) published the non-completion rate for Hispanics as 38%, while Mackey and Beebe (1977, p. 50) noted that 87% of the Puerto Rican students over 25 years of age had not completed high school. In Chicago, 70% of the Puerto Rican students had dropped out (Schaefer, 1979, p. 315), while in Philadelphia, 65% of the Puerto Ricans left school before completion (Vasquez, 1974, p. 22). In striking dissimilarity, The U. S. Bureau of Census reported that 25% of Hispanic Americans were not enrolled in school and had not completed high school (Brown et al., 1980, p. 100).

A second example of misinterpretation surfaced out of the information collected through a Civil Rights Survey (1980). As previously discussed they concluded that Hispanic students are enrolled in special education programs in equal proportion to their total school enrollment. Yet, a careful examination of the information collected on the individual states of New York, Florida, and New Mexico gives rise to different conclusions.

In New York (predominately Puerto Rican), Hispanic students represent 11% of the total enrollment, 13% of all pupils enrolled in programs for educable mentally retarded, and 18% of trainable mentally retarded (TMR); whereas Hispanic students made up only 5% of the total learning disabled students.

In New Mexico (predominately Mexican-American), Hispanic students represent 42% of the total enrollment, 57% of all pupils enrolled in programs for the EMR, 51% of all TMR students and 48% of the learning disabled students.

In Florida (predominately Cuban-American), Hispanic students represent 7% of the total enrollment, 4% of all pupils enrolled in programs for EMR, 7% of the TMR and 7% of the total learning disabled students.

Most noteworthy in studying data compiled on the three states of New York, New Mexico, and Florida are the differences in Hispanic representation in programs for the gifted. Note that in New York, students were proportionately represented, while in Florida and New Mexico they were grossly underrepresented in programs for the gifted or talented.

This comprehensive survey, conducted by a respected agency has the obvious advantage of collecting, aggregating and analyzing large, reasonably representative samples of data. Attention is focused on the gathering of information under the term "Hispanic," and little effort is made to separate the data into the major subcultures of Mexican-American, Puerto Rican, Cuban-American, Central/South American, or "Other Hispanics."

Thus far it has been argued that there are significant differences in educational achievement and special education placement among the major Hispanic subcultures. Cuban-Americans as a whole tend to attain higher educational levels than Puerto Ricans or Mexican-Americans. Puerto Ricans as a whole have the highest dropout rates, yet represent the highest proportion of Hispanic students enrolled in gifted or talented programs in the State of New York.

In searching for an explanation for these educational differences, a reviewer is perplexed at the dearth of research studies designed for the specific purpose of comparing students of the three subcultures. While a plethora of position statements testify to the distinctiveness

of the groups, little empirical evidence has been compiled to support these statements. And, with the exception of migration studies and some efforts in acculturation research, no study was uncovered which set out for the expressed purpose of comparing the Mexican-American to the Puerto Rican or the Cuban-American student. Migration and acculturation studies demonstrate the diversity of the Hispanic immigrants, and the variety of reasons given for leaving their respective places of birth in order to come to the United States.

Cubans

The United States is a nation made up of immigrants, most of whom came to this country because of religious, economic, or social reasons. The influx of the Cubans was not just another group of hungry, tired, and poor immigrants yearning to find wealth in a new land, but rather the Cuban exodus was a case of "self-imposed political exile" which intrigued the three Stanford sociologists who conducted the most respected published research on the migration (Fagen, Brody, & O'Leary, 1968). From the results of their comprehensive interviews with Cuban exiles, they concluded that the migration was distinct in two major ways: Firstly, the conditions that prevailed in Cuba in 1958 were in the true sense of the word, revolutionary. Cubans left for purely political reasons, which is significantly different from the non-political migrations of the Mexican or the Puerto Rican. Secondly, the Cuban exile was self-imposed, for the Cuban refugees were not fleeing for their lives, but rather from a complex set of circumstances thought, by the exiles themselves, to be "intolerable" (pp. 4-6).

Rumbaut and Rumbaut (1976) concluded that one of the most distinctive characteristics of the Cuban migration rests in the manner in which they were received by the United States Government. The Kennedy Administration established the Cuban Refugee Program which concentrated on relocating the exiles throughout the United States. Positions as Spanish language professors and teachers in universities and public schools were secured. The facilitative and positive reaction accorded the Cuban exiles by the Government was unprecedented in the history of this country.

Another distinctive characteristic of the Cuban migration is that the first two waves of refugees did not represent a cross section of the Island's total population, but rather a disproportionate number of the early arrivals came from the middle and upper strata of Cuban society (Fagan et al., 1968). Seldom has an immigrant group come to this country so well educated and motivated to achieve (Mackey & Beebe, 1977). The first two waves of Cubans were familiar with the U. S. society, agreed upon the basic American value of hard work, and entered into a strong network of associates, friends, and relatives within the ethnic community of Miami (Rumbaut & Rumbaut, 1976; Ballesteros, 1979). While the first of exiles were representative of the upper and urban middle classes in Cuba, later arrivals have been increasingly more representative of all sectors of Cuba. For most of the Cuban immigrants, leaving their country was a self-imposed exile, without the possibility of return. Mexican-Americans, on the other hand, offer a different migration story.

Mexican-Americans

The first "arrivals" of Mexicans in the United States is significantly different from the Cuban pattern of migration. Specifically,

Mexicans were in this country before it was formed. They were literally "annexed" into the United States following the conquest of the Mexican American War. Subsequent to the signing of the Treaty of Guadalupe Hidalgo, Mexicans became American citizens. Cultural ties have remained strong for these immigrants, partially because of close proximity to their Mother country (Ramirez & Castaneda, 1974). This easy migration between the two countries is the reason cited by Ballesteros (1979) for the Mexican-American often not making a full commitment to the new country. Of the three major Hispanic subcultures, the Mexican-Americans represent the greatest intra-heterogeneity (Ramirez & Castaneda, 1974). These differences include, the length of residence in the United States, racial make-up, the dominant language used in the home, their dialectal differences, the degree of acculturation, participation in the majority culture, and the reception accorded the immigrants by the United States (Knowlton, 1975). In contrast to the supportive and organized welcome given the Cuban immigrants, the Mexican arrivals throughout the decades have been welcomed principally because they provide a cheap labor source for the maintenance of agricultural superiority.

Portes, McLeod, & Parker (1978) studied the Cuban and the Mexican immigrant because they represented a similarity in language, yet had significantly different reasons for coming to the United States. These researchers found that the Mexican immigration pattern departed markedly from the Cuban pattern in that the number of Mexican professionals and technicians immigrating in 1974 was a very insignificant proportion to the total, as contrasted to the overrepresentation of the professional class in the Cuban migration. The bulk of Mexican arrivals concentrated

in the areas of domestic service and unskilled labor. The Portes study also compared the aspirational levels of the Cuban to the Mexican immigrant and determined that the aspirations of the Cuban exiles, both in terms of income and education, were significantly more favorable than those of the Mexican immigrants. Differences between the two groups were directly related to their respective backgrounds and the reasons they cited for leaving their homelands. In essence, coming from Mexico versus coming from Cuba made a considerable difference in the two groups, i.e., if past income and educational achievement had been good, then expectations were high that future income and educational attainments would be better. Supporting the distinctions between these two groups of immigrants, two different studies conducted eight years apart (Komaroff, Masuda, & Holmes, 1968; Valdes & Baxter, 1976) found that the Cuban was far more similar to the Anglo-American than to the Mexican-American. "This fact was contrary to the expectations due to the common Spanish traditions of the Cuban and the Mexican" (p. 234).

While the early Cuban arrivals represented a disproportionately high number of professionals, and are yet today prevented from returning to their homeland, the Mexican immigrants, on the other hand, enjoy easy access to their homeland, but represent a disproportionately high number of unskilled workers from the poverty levels of Mexican society. Different still, are the immigration patterns of the Puerto Ricans.

Puerto Ricans

Puerto Ricans are the first group to enter this country from a culturally different area, but who are at the same time citizens of the United States. In order to better understand the Puerto Rican

attitude towards their distinctly different citizenship status, one must explore the "commuter migration" syndrome. Born as American citizens on the Island of Puerto Rico, Puerto Ricans grow up speaking Spanish, yet are a part of a culture very distinct from their country of citizenship. As these Puerto Rican citizens migrate to the Mainland, they find that their use of Spanish, appropriate on the Island, often precludes them from social, economic, and educational mobility in the United States. For this reason, Puerto Ricans often see themselves as being denied full rights of citizenship.

Puerto Rican migration patterns vary according to the economy of the United States. For example, President Reagan's recent budget cuts in food aid to the Island may initiate a heavy return migration to the Mainland (Roanoke Times and World News, March 11, 1981, p. A-14). Cordasco and Bucchioni (1973) contend that the situation of the Puerto Rican living on the Island cannot be abstracted from the situation of the Puerto Ricans living in the United States. In support, Vasquez (1974) suggests that because of easy return to the Island, many Puerto Ricans are not committed to achieving high levels of acculturation in this country.

Differences and Discord Among the Three Subcultures

According to Reyes (1978), Cubans have assimilated into the mainstream of Chicago life more readily than the Mexican-Americans or the Puerto Ricans. Cubans do not tend to stick together in separate parts of the city, but rather are scattered about and enter into the broader community with ease (p. 72).

Many Cuban-Americans are financially successful. This fact is often cited as one source of resentment among other more long established Hispanic groups. For example, Mackey and Beebe (1977), found that in Florida, where all three subcultures are represented, an attempt was made to unite the leaders of each subgroup in order to present a more powerful, political coalition to achieve better jobs. Five Mexican-Americans who represented the 5,000 workers living in Miami, and five Puerto Ricans representing about 30,000 workers attempted to unite with the five Cuban-Americans who represented about 250,000 workers in the city. The intra-group hostility did not permit the organization of the coalition (p. 25).

Other studies and position papers reveal that there is some discord between the Cuban-Americans and the Puerto Ricans. While the former are not born citizens of the United States they consider themselves to be "better and whiter" (Rodriquez, 1979). In the Puerto Ricans' estimation, the Cuban refugees are the "preferred" immigrants, given preference in jobs, in reorientation to the United States, and often receive professional positions above the Puerto Ricans (p. 157).

> Most of the Cubans are an exiled professional middle-class that came to the United States for political reasons. They are lauded and rewarded by the United States government for their rejection of Communism and Fidel Castro. The Cubans lean toward the political right, are fearful of the involvement of the masses of poor people. Being middle-class they are familiar with 'the system' and operated successfully in this structure. They are competitive and upwardly mobile. They have little sympathy for the uneducated poor. (Hilda Hidalgo, quoted from Cordasco & Bucchioni, 1973, p. xvi)

Puerto Ricans lack a strong feeling of identity (Leavitt, 1974). In contrast to the Mexican-Americans, they were not united in any

revolutionary struggle against another country. While the Mexican traditions are stronger than those of the Puerto Ricans, the tightly bound enclaves of the Cuban-Americans do not appear to exist in either subculture. Cuban-Americans appear to have acculturated well into the majority culture. Ballestero suggests that Cuban exiles exemplify the characteristics which Americans reward, namely; hard work, perseverence, forwardness, curiousity, and outgoingness.

Summary

A comprehensive review of the related literature provides conflicting responses to the question: What is the representation of Hispanic students in certain special education and gifted programs? Considerable data support the overrepresentation response, however, recent available information from Eastern states indicates that Hispanics may be underrepresented in these programs. Yet, on the other hand, the Civil Rights Survey concluded that Hispanic students participate in special education programs consistent with their representation in the total school enrollment. Because the question of representation cannot be separated from the issue of nondiscriminatory assessment procedures, the second section of this review has explored and critically analyzed the modifications and alternatives implemented to minimize or eliminate bias for the Hispanic student. Modifications discussed included translation, renorming and adding points, ethnicity matching, test-training, the development of culture-fair tests, criterion-referenced measures, and the use of pluralistic assessments. Finally, the third section demonstrated the importance of maintaining separate data on the three Hispanic subcultures of Mexican-Americans, Cuban-Americans, and Puerto Ricans. In

sum, this review points to the need to collect more accurate information regarding the enrollment patterns of Hispanic students in special education or gifted programs, and procedures implemented to ensure nondiscriminatory assessment.

Chapter 3

METHODOLOGY

Introduction

This chapter relates the research procedures used to describe the proportionate representation of Hispanic students in Special Education and Gifted programs, and modifications implemented to ensure nondiscriminatory assessment. The procedures are presented in five sections: (1) a description of the population, (2) the instrumentation, (3) the design, reproduction and administration of the questionnaire, (4) the data analysis procedures, and (5) a summary of the research design and methodology.

In designing the descriptive study and prescribing the manner in which the research was to be conducted, it was necessary to take into account the purposes of the study, and the resources that were practical and feasible. Because the primary end sought of the study was to describe present phenomena in widely diverse geographic areas of the United States, the mailed questionnaire was selected as the most appropriate method for the collection of data for the following reasons: First, the study was designed to gather data from the six states of Texas, New Mexico, Florida, Massachusetts, Pennsylvania and New York. It was not feasible to make on-site visits to each of these states for personal interviews. In addition, the issues under study were considered sensitive in nature. A questionnaire is impersonal, and respondents may

feel a greater confidence of anonymity than in a face-to-face interview. Finally, a questionnaire, by design, is under the control of the respondent. Certain sections may be completed as time and the availability of information permit (Selltiz, Jahoda, Deutsch, & Cook, 1976).

Population

The population for the study was determined through a series of inductive steps or phases, and directed by the research questions. These phases were:

Phase One

The question of proportionate representation of Hispanic students into special education and gifted programs, as related to nondiscriminatory assessment procedures, could best be answered by seeking information from areas in the United States where substantial numbers of Hispanics reside. Brown et al. (1980) noted that over 75% of the Hispanic students enrolled in the Nation's schools, live in the five states of Florida, New York, California, Texas, and New Mexico.

Because a somewhat pioneering part of the study was the investigator's attempt to collect data for the purposes of making comparisons among the three subcultures of Cuban-American, Mexican-American, and Puerto Rican students, it was necessary to pinpoint areas of the United States in which each of these subcultures was located. Through an examination of data from the U. S. Bureau of Census, Civil Rights reports, and subsequent telephone conversations with professionals in State Education Agencies (SEAs), it was found the Cuban-Americans, although spread throughout the nation, often locate in the South, in particular in Florida. Mexican-Americans, although also dispersed throughout the United States,

concentrate in the Southwest, in particular in Texas. Indeed, 97% of the Hispanic students enrolled in public schools of Texas, are of Mexican descent. Puerto Ricans generally reside in the industrial cities of the Northeast, Chicago and Los Angeles. Because nearly 200,000 Hispanic students, the majority of whom are of Puerto Rican background, are enrolled in the New York City public schools, New York City was targeted as the best choice for the collection of data on the Puerto Rican student.

The State of New Mexico was selected as the most appropriate source from which to collect information on the representation/density research question. More than 43% of the total school enrollment in New Mexico public schools are of Hispanic background.[1]

A final, yet significant dimension of the problem under study, was the often neglected consideration, that Hispanic students may be underenrolled in special education. As previously discussed (Chapter 2), few incidents of underrepresentation have been made public. Two exceptions to this statement recently surfaced in the East; one, in the City of Philadelphia, and the other, in the State of Massachusetts. These two areas were then chosen as the most appropriate cities from which to collect data on the Hispanic underserved student.

Essentially then, the states of Florida (predominately Cuban-American), and Texas (predominately Mexican-American), and the City of New York (predominately Puerto Rican) were selected to provide data on the Hispanic subcultures, while the State of New Mexico was chosen to gather information

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[1] New Mexico School District Profile: 1978-79 School Year, New Mexico State Department of Education.

on the density relationship question. The State of Massachusetts, and the City of Philadelphia were targeted as appropriate to provide data on the research questions dealing with the underrepresentation issue.

Phase Two

After selecting those areas of the United States, which met the criteria for the population to be studied, it was necessary to compile a listing of LEAs within each of these areas whose Hispanic population was sufficient to qualify them to respond to the survey. Adopting again the Massachusetts vs. Holyoke (1979) hearing, it was decided to select those LEAs whose Hispanic population was 20% or more of their total enrollment. On the surface and given the numerous statistical reports available, this would seem an easy task; however, several difficulties arose.

In Texas, for example, there are 1,099 LEAs grouped into twenty (20) regions.[2] Several COOPs or ISDs have developed for the purpose of serving handicapped students. Cooperatives often cut across regions. One COOP may serve seven LEAs, three of whom have over 35% Hispanic population, and the remaining four (4) have less than 10% Hispanic enrollment. Again, a complication arose when it was uncovered that, while public school enrollment data for Texas is available under each LEA, Special Education enrollment information for each COOP or ISD is not available. Essentially then, as before, reliance was made on the Texas State Department of Education to assist in the development of an

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[2]From: Microfiche: Texas Public School Membership by Ethnic Group: 1980-81 Fall Survey: State Department of Education, Austin, Texas.

accurate enumeration frame, which would include all LEAs whose Hispanic population was significantly large to respond to the questionnaire. The Associate Director suggested that the survey be mailed to Regions I, II, XIX, and XX, an area which included over 445,000 Hispanic students enrolled in 63 LEAs.

The development of a frame for the state of New Mexico was a simpler procedure than that of Texas. This was due in part, to the extensive publications of the New Mexico State Department of Education which were provided to the investigator. It was found that Hispanic students comprise over 42% of the 270,026[3] students enrolled in the New Mexico public schools. A total of 53 LEAs met the 20% criterion for participation in the study.

Difficulties of a different nature emerged during the development of the enumeration frame for New York City. Considered as one LEA, New York City was divided into over 30 districts within the Burroughs, during the late sixties. While some of the educational services have been decentralized, services for Special Education remain centralized. The Board of Education of the City of New York provided a list of the separate districts within the City and a statistical report on race and ethnicity. No information, however, has been published on the enrollment figures for each district, therefore these data were provided to the investigator by telephone. This information was then matched with the published ethnicity data, and the 20% criterion was applied. In total, 21 districts were included in the final frame for New York City.

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[3]From New Mexico School District Profile: 1978-79 School Year, New Mexico State Department of Education.

For the construction of a frame for the remaining states of Florida and Massachusetts, the 20% criterion was not considered useful. In Florida, for example, several LEAs have large school enrollments, and while a significant number of these students may be of Hispanic backgrounds, the percentage may not reach 20%. On the other hand, it was noted that one LEA in Florida serves more than 83,000 Hispanic students, predominately of Cuban-American background. Again, the investigator turned to the State Department of Education for direction. The professional responsible for the administration of Special Education programs for minority-language students, suggested that ten (10) LEAs be selected to participate in the study.

As with Florida, the 20% criterion was not useful for the development of a frame in the Commonwealth of Massachusetts. The State Department of Education in Massachusetts suggested that the survey be mailed to five LEAs whose Hispanic population was adequate to respond to the questionnaire. The investigator added another LEA, the site of the hearing of Massachusetts vs. Holyoke (1979), and the impetus for the problem herein under study. In total, six (6) LEAs were included in the enumeration frame for the State of Massachusetts. The City of Philadelphia was selected for the study, principally because it was the site of a complaint filed by the Education Law Center, alleging that the City of Philadelphia was underserving Hispanic students in Special Education.

Phase Three

Throughout the development of Phases One and Two, the investigator was concerned that the professionals selected to participate in the

survey would not only sense the significance of the problem under investigation, but moreover, be knowledgeable in the area of nondiscriminatory assessment for the Hispanic student. Of equal importance, was the criterion that they would have access to or control over, the requested information. Administrators of Special Education emerged as those persons most likely to meet these criteria. Their responsibilities usually include the development of a Federal Child Count for Handicapped Children, the writing of the Local Education Agency's Plan for Special Education, for ensuring the local school boards that all children, regardless of race, ethnicity or handicap are guaranteed protection in the evaluation process, and ultimately, they are responsible for the administration of all special education programs and related services in their respective LEAs. There was no intent on the part of the investigator, to collect information on the philosophical, emotional or psychological background of the Administrators of Special Education, nor was there any effort to gather data on their experiences, educational levels or ages. They were simply the best vehicle for obtaining data sought in the study.

In sum, 157 Administrators of Special Education in 157 Local Education Agencies in the six states of New York, New Mexico, Texas, Pennsylvania, Florida, and Massachusetts met the criteria for participation in the study. The statistician, hired by the investigator throughout the conceptualization of the research design, suggested that, because the investigation sought to describe phenomena in a relatively uncharted area of research, the complete enumeration frame was appropriate. Because cost was not a prohibiting factor, and time was not unduly limited, the complete enumeration frame concept was adopted.

Following this decision a letter was forwarded to the Directors of Special Education in the State Departments of Education in the six states (see Appendix A). Each letter outlined the purpose and significance of the study, and elicited the cooperation of the State Department of Education. In addition, a request was made for a current list of Administrators of Special Education and Gifted programs, and/or a contact person to assist in the project. Each State Department of Education responded affirmatively to the request, either by sending a current listing, or by suggesting the name of a professional in the Division of Special Education who would assist with the investigation. Following this initial permission to conduct the study, a series of communications began. Throughout the ten months of the study, the State Departments of Education provided information and assistance upon request.

Instrumentation

The construction of a questionnaire is an arduous task, which ultimately entails a series of compromises; compromises between the quest for accuracy and the desire to secure a respectable response rate. Items must be developed so as to elicit accurate information, while not irritating the respondent, and yet respond fully to the research questions. Item construction is something of an art in itself, but the most ingenious writer of questions seldom is certain of their clarity until they have been reviewed by professionals in the field. For the present survey, eight successive revisions of the instrument were prepared, over a period of six (6) months, before the final draft was committed to type-setting and professional printing. Subsequent to each revision, the succeeding draft was mailed to selected

professionals in the field who were knowledgeable in the area of special education for the Hispanic student.

Development of the Questionnaire

The initial phase of the development of the instrument was strongly influenced by the review of the literature, the subsequent research questions which grew out of the review, the professional experiences of the investigator while teaching in Latin America, recent interviews with Hispanic educators, and a careful study of past survey instruments related to the problem under study.

The content and format of the questionnaire were further influenced by three considerations: First, that the information sought revolved around two sensitive issues; that of the proportionate number of Hispanic students enrolled in special education and gifted programs, and the evaluation procedures designed to ensure nondiscriminatory assessment. Second, since the questionnaire was to be mailed to Administrators of Special Education, generally known for their particularly heavy workload, it was important that the questionnaire be relevant, concise and accurate. Third, since most national surveys of this nature had requested enrollment data in special education and gifted programs, under the general term of "Hispanic," this survey sought to gather data on, not only the Hispanic population as a group, but moreover to maintain separate information on the three subcultures of Cuban-Americans, Mexican-Americans, and Puerto Ricans. Because this design was relatively uncharted by earlier research, there were few guidelines to direct the researcher. Eventually, a two-pronged approach appeared best; that of sending the instrument to parts of the United States in which there were pockets of

each subculture, and secondly, to ask each respondent to indicate the percentage of Hispanic students who were of Mexican, Puerto Rican or Cuban backgrounds residing in each LEA.

Field Reviewers

Over a period of six (6) months, three sets of field reviewers were involved in the criticism and revisions of the draft questionnaires. The composition of these groups was suggested by Dillman (1978, p. 156). What follows is a sketch of each professional in the three groups and a brief discussion of only their salient criticisms and comments.

The first group was composed of colleagues and similarly trained professionals who not only appreciated the study's foci, but grasped the nature and significance of the investigation. The function of this first group was to judge the questionnaire in terms of its relationship to the research questions, to examine it for clarity of purpose, general tone, and accurate use of terminology. Comments were also sought on the format and overall design of the instrument. The composition of this first group of field-reviewers was as follows: a) School Psychologist and consultant throughout the development of the questionnaire, who is fluent in Spanish, German, French and English. Her most recent research involved the comparison of individual intelligence test results of Puerto Rican students when administered the WISC-R and when given the Escala de Inteligencia Wechsler Para Ninos. b) Supervisor for a State Education Agency whose primary responsibilities include the supervision of Special Education programs for twenty-four (24) LEAs, whose total school enrollments include a large number of minority language students. c) Associate Director and Psychologist for a State Education Agency, whose responsi-

bilities include the formulation of guidelines to ensure protection in evaluation procedures for all minority and minority language students. d) Statistician for Virginia Polytechnic Institute and State University whose primary responsibilities to the investigator were to critique the design of the questionnaire in order to provide assurance that the data collected would be amenable to computer analysis, easily quantified, and answer the research questions.

The second group consisted of potential users of the information, who were thoroughly familiar with the topic under study, and in particular, the terms used in the questionnaire. The composition of this group of field reviewers included; a) an administrator in Special Education, Mexican-American; b) a University professor of Psychology, Puerto Rican; c) a multi-lingual psychologist of Cuban-American background, and d) a Bilingual-Bicultural Director and Puerto Rican whose research interest is in the area of nondiscriminatory assessment. The principal purpose in the selection of the members for the second group, was to secure feedback from the Hispanic educational community. They were asked to review the questionnaire for clarity, relevance, and most importantly to determine whether the respondents would have sufficient background to understand the terms used in the instrument.

The third and final group of field-reviewers was composed of professionals in the target population or very similar to those to whom the questionnaire would be mailed. The members of this group included: a) A Director of Special Education of Mexican background; b) An Executive Administrator of Special Education, whose primary responsibility includes the development of nondiscriminatory assessment guidelines

for students of limited English speaking ability. c) A Supervisor of Special Education who supervises Special Education programs for children of limited English speaking ability, the majority of whom are of Hispanic background. d) The Interagency Director for the Florida State Department of Education (of Hispanic background), whose primary responsibility is to supervise and monitor all programs for exceptional children of minority language. e) A Supervisor of Special Education of Puerto Rican background, whose primary research interest is school law and the exceptional/minority language student.

The principal functions of this third group were to determine whether Administrators of Special Education would have access to the data requested, estimate the length of time necessary to complete the questionnaire, and to make final comments on the instrument before it was committed to type-setting and professional printing.

Finally, in addition to the comments and criticisms provided by the outside field-reviewers, members of the investigator's committee asked incisive questions, made apposite comments, and pertinent criticism.

Revisions Suggested by Field-Reviewers

Only the salient points suggested by field-reviewers for the revision of the questionnaire are reported below. (For a detailed discussion of each reviewer's recommendations, see Appendix B.) Major changes from the first to the final draft, are subsummed under three headings: definition of terms, substantive revisions, and changes in the format of the questionnaire or cover letter.

Comments from Hispanic reviewers documented their uneasiness with the use of the term "Hispanic." Mexican-American, Puerto Rican and

Cuban-American reviewers opposed the use of the term, principally because it infers a strong alliance with the Old World of Spain. Each strongly recommended the use of the term "Latino." Only one reviewer, an Anglo, recommended the use of "Hispanic." The investigator chose to replace "Hispanic" with "Latino" on the questionnaire, but retain the use of "Hispanic" throughout the dissertation.

Other terms such as "special education," "handicapped children," and "exceptional children" are used differently in the particular states selected for the study. For consistency, it was decided to use the terminology from Public Law 94:142. Another complication surfaced when designing the questionnaire to include the State of Massachusetts, a state which does not label categorically. An insert was designed to be placed in the questionnaires mailed to Massachusetts (see Appendix D).

Reviewers from the first group were puzzled over two accommodations cited in the questionnnaire which were, "the addition of points to the obtained scores," and, "referral to local ethnic norms for scoring." These items were omitted from the final form. Four reviewers were uncomfortable with the subtle connotation of the item, "a visit to the home of the Hispanic student is made by a professional of Hispanic background." "What type of visit," they queried, "by whom, and what does Hispanic background mean?" This item was also deleted in the final version.

Between the third and fifth drafts, three substantive changes were made; the first included the deletion of the inservice section, while the second involved the omission of the Hispanic parental attitudes section. The inservice section provided little new information, yet

required space and time to complete. Furthermore, the questionnaire was descriptive in nature, rather than attitudinal. The third substantive change occurred when the investigator, albeit not without some internal conflict, decided to omit the Current/Desired concept. Guided principally by the writer's chairman, it was agreed that this approach might place the respondent in a vulnerable position, i.e., if this is desired or better, then why are you not implementing it?

Finally, a few changes in the format of the questionnaire and the cover letter were agreed upon: The first three drafts sought information regarding special education and gifted enrollment through the use of a table. Because tables may be unclear to the respondent, the table format was replaced with straight line question format (A changed to B below).

A

Indicate ESTIMATES only

Handicapped Students	Hispanic	Black	Anglo	Other
Educable Mentally Retarded Pupils				
Gifted/Talented Pupils				
Learning Disabled Pupils				
Emotionally Disturbed Pupils				

B

21. Total Special Education enrollment in your local school district _____ or if COOP, total Special Education enrollment in COOP _____

22. Total number of LATINO students in Special Education _____ (ALL EXCEPTIONALITIES, INCLUDING SPEECH)

23. Total number of gifted or talented students _____

24. Total number of LATINO gifted or talented students _____

In a similar fashion in a quest for accuracy, it was recommended by four reviewers that a percentage be requested of the Cuban-American, Mexican-American and Puerto Rican student enrollment. (A changed to B below.)

A

Of the Hispanic school-age population would you describe them as predominately:

____a) Cuban-American
____b) Mexican-American
____c) Puerto-Rican
____d) Central or South American
____e) Other (Please specify)
_____

B

20. Of your total LATINO enrollment (non-handicapped and handicapped) please ESTIMATE what percentage of students would fall into the following subgroups:

Cuban-Americans _____%
Puerto Ricans _____%
Mexican Americans ____%
Central or South Americans _____%
Other Spanish Origin _____%

As a final touch, the general tone and appearance of the cover letter were thoughtfully reviewed. The cover letter was rewritten in less formal language and included a statement on the unique problems faced by each state in the development of quality programs for the Hispanic exceptional student (see Appendix C).

Comments from the last field-reviewer provided some needed encouragement to a weary investigator. "All in all," she stated, "you have developed a comprehensive instrument that touches on many important issues and problems in serving the Hispanic population. I agree that this [research] is only a jumping-off point for more in-depth research and evaluation. You'll be cited for years to come! Good luck!"

Design, Reproduction and Administration of the Questionnaire

More than 75 items were eventually pared down to the final 35 questions. These questions were of three types: closed-ended

with three nominal choices: Two scales were provided for the respondents:

SCALE I

1. AA (Almost Always) Occurs 81-100% of the time
2. F (Frequently) Occurs 61-80% of the time
3. O (Occasionally) Occurs 41-60% of the time
4. S (Seldom) Occurs 21-40% of the time
5. AN (Almost Never) Occurs 0-20% of the time

SCALE II

_____YES

_____NO

_____NOT CERTAIN

There were also eleven questions requiring completion and three open-ended questions (Appendix D).

The 35 items were divided into the following three concepts:

A. Assessment process: modifications and alternatives implemented in the evaluation process for the Hispanic student.

B. Enrollment data: numbers of students served in special education and gifted programs.

C. Parent participation: level of involvement of parents in the educational process.

Transitionary paragraphs were thoughtfully developed between the sections, in order to give the respondent a sense of direction and logic. The placement of "modifications made in the assessment process," prior to "placement data," followed by "parental involvement," seemed logical to the writer.

The reproduction of the questionnaire was paid for out of Student Research #G008100031 and therefore cost was not a prohibiting factor. The instrument was type-set, photographed and professionally printed, being the "best method of reproduction from the standpoint of professional quality" (Babbie, 1973, p. 155). After printing, the questionnaire was formed into an eleven page booklet, with dimensions of 3 and 3/4 inches by 8 and 1/2 inches. A number nine envelope was printed to be enclosed for the return response. This approach avoided folding the enclosed envelope. A stamped, self-addressed postcard was also printed and enclosed, in order to receive a "summary of the results." This method was thought to give further assurance of confidentiality (Dillman, 1978). While the two hundred and fifty questionnaires were being printed, a typist was preparing 157 cover letters and envelopes. Dates were advanced in order to coincide with the printing schedules. Cover letters were personalized with an introductory statement acknowledging the unique problems faced in each state. The letter also noted the importance of the study, cited the experience and knowledge of the respondent as critical to the success of the research, promised confidentiality, a "summary of results" and concluded with a statement of appreciation (see Appendix D).

Administration of Questionnaire

1. The first mailing occurred on September 5, 1981. A cover letter, a copy of the questionnaire, a self-addressed, stamped, return envelope, and a printed, stamped postcard for receiving a "summary of the results" were sent to 157 Directors of Special Education or Contact persons for Special Education in the six states of Texas, New Mexico, Florida, Massachusetts, Pennsylvania and New York.

2. Ten days later a postcard was mailed as a follow-up reminder and a thank you note to those who had already responded.

3. A second follow-up mailing occurred on October 3-6, 1981. Its contents included a newly worded cover letter (see Appendix D), a replacement questionnaire, another self-addressed stamped envelope, and a postcard for receiving a "summary of results."

4. A third mailout occurred seven weeks from the original mailing, on November 4, 1981. It consisted of a new cover letter (see Appendix D), a replacement questionnaire, and a self-addressed, return envelope. It was sent by certified mail to a random sample of nonrespondents, the number based upon an effort to achieve a 75% response rate from each state.

5. The final follow-up procedure consisted of telephone communication to nonrespondents during the week of November 17-25, 1981. The purpose of this communication was to determine whether they had received the questionnaire, to request that they complete it promptly, or perhaps to do so by telephone. Finally, if they refused to do either, to ascertain reasons for nonresponse.

After the procedures for the mailing of the questionnaire were initiated, a careful recording of the returns commenced. A graph was designed to indicate the number of questionnaires returned each day in an effort to document whether follow-up mailings, certified letters, and the telephone communications had affected response rate. In addition, if some major event had occurred in history, the graph would provide a recording of its possible impact on the number of responses (see Figure 1).

Data Analysis

The essence of the study was to determine if there was a relationship between the enrollment patterns of Hispanic students in special education or gifted programs, and the modifications made to ensure nondiscriminatory assessment; i.e., is Section B of the questionnaire (Enrollment Data) related to the frequency of use of assessment modifications?

A second, yet equally important aspect of the study was to determine if there were differences among the Hispanic subcultures of Cuban-Americans, Mexican-Americans, and Puerto Ricans. It was important to emphasize the extreme differences in the enrollment numbers of Hispanic students in the Local Education Agencies who participated in the investigation. Summary statistics such as central tendency, measures of variability, symmetry, and peakedness aided in highlighting enrollment variabilities.

Because the task of data analysis was to determine the basic distributional characteristics of each of the variables under consideration, the seven research questions were responded to, firstly, by an examination of responses on the Hispanic population as a whole, and secondly, by a reexamination of the responses (given in percent) and divided into the three subcultures.

The type of scale used for the collection of data on the questionnaire determined what measures of association and statistics to be employed. Two different scales of quantification were developed: nominal and ordinal measures. In order to achieve the ordinal level, an index was designed from the enrollment data supplied on Section B

of the questionnaire. Enrollment data on non-Hispanic, non-handicapped students were compared to enrollment numbers of Hispanic students. From this ratio a norm was established from which to derive the following categories: (see pages 89-91 for detailed discussion).

1. Underrepresentation: minus 20% and below
2. Proportionate representation: plus or minus 19.9%
3. Overrepresentation: plus 20% and above

Crosstabulations were then computed between the Hispanic enrollment patterns in each Local Education Agency, and the level of frequency of use of modifications made in the assessment process.

In this investigation, tests of significance were used with caution, principally because the study was designed to collect information using the complete enumeration frame, rather than a random sample: therefore, no chance of sampling error was possible. However, a test of significance was used to indicate the probability that the relationship was a general one over time, not just one instance at the time of the study (Babbie, 1973, p. 312). Therefore, in order for the investigator and the readers to better interpret and understand the data, two tests of significance were applied: Chi-square (X^2) was used to determine whether a systematic relationship existed between two or more variables, i.e., if each was statistically dependent or independent: and the statistic gamma (G), appropriate for measuring both strength and direction of association between ordinal levels of measures was applied to contingency tables (Freeman, 1965, p. 79).

Summary

The primary method of data collection was the mailed questionnaire. Because the study commenced with research questions, it required techniques for ordering data and examining relationships of variables: percentages, bargraphs, piecharts, and the statistics chi-square and gamma were considered appropriate for the examination and display of the findings of the study.

Chapter 4

FINDINGS

The findings discussed in Chapter Four were taken from information collected on questionnaires mailed to 157 Administrators of Special Education during the Autumn of 1981. Summary statistics, including central tendency, measures of variability, symmetry, and peakedness were applied to describe school enrollment characteristics of the responding Local Education Agencies. After examining distributions of data for each variable, the principal method used to investigate relationships among selected variables was contingency analysis, with the statistic gamma (G), and the nonparametric statistics chi-square (X^2) applied to crosstabulations. Illustrative materials, such as graphs, tables, or figures were used to extend or clarify findings highlighted in the textual discussion.

Because the purpose of the investigation was to chart descriptive information about an area not yet sufficiently explored to test definitive hypotheses, the study began with research questions. Following a discussion of the population characteristics, including both response and nonresponse information, each research question was restated, and inasmuch as was possible, findings were grouped accordingly. Implications, interpretations and conclusions were reserved for the fifth and final chapter.

Population

A 35-item questionnaire, developed by the investigator and field-tested over a period of six months, was mailed to 157 Administrators of Special Education in the four states of Texas, New Mexico, Florida and Massachusetts, and the two cities of Philadelphia and New York. The schedule and procedures for securing maximum response rate developed by Dillman (1978) were implemented (Figure 1). Of the 157 questionnaires mailed, 107 were returned, representing a mean response rate of 74% (excluding three known frame errors), and an actual response rate of 70%. Of the returned questionnaires, 101 were considered usable for analysis (Table 1), while six were rejected because numerous items were not completed and information was irretrievable.

Response Characteristics

The 101 responding Administrators of Special Education represented a total school enrollment of 1,567,006 students, including an Hispanic school enrollment of 631,425 for a 40% Hispanic representation. Because the survey sought information to describe the accommodations and alternatives used to provide protection in the evaluation procedures for the Hispanic student, the importance of clarifying the extreme variability of enrollment data can hardly be overemphasized. For example, one questionnaire represented a total school enrollment of 224,339 students, while another represented an enrollment of 215,555 students, which included an Hispanic population of 87,000 students, 80% of whom were of Cuban descent. At the other extreme, one questionnaire represented a total school enrollment of 122, with 32 being of Hispanic background.

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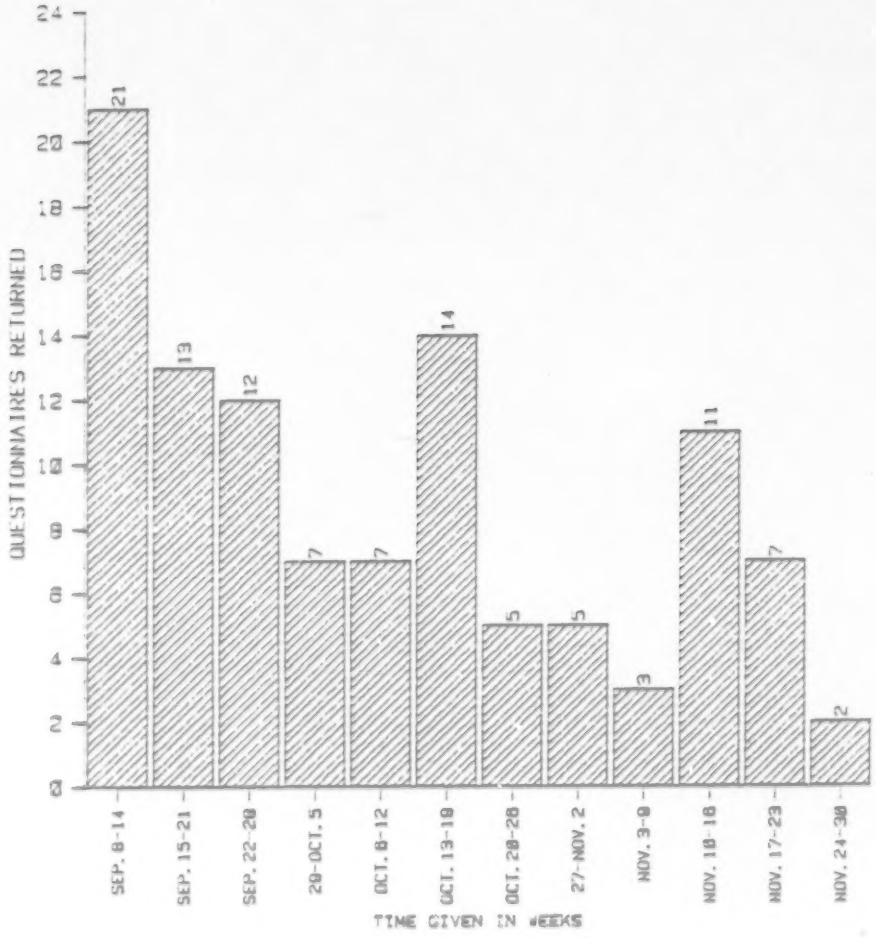

Figure 1. Questionnaire response.

Table 1

Questionnaire Return Response Rate by State

State	Mailed	Known Frame Errors	Returned	Usable	Percent Response
Texas	63	0	47	43	74.6%
New Mexico	56	0	38	38	67.9%
New York	22	2*	10	09	50%
Florida	10	1*	06	06	66.7%
Massachusetts	06	0	05	05	83.3%
Pennsylvania	01	0	01	01	100%
TOTAL	157	3	107	101	74% M 70% Actual

*Insufficient Hispanic population.

Summary statistics aid in highlighting these enrollment variabilities (Table 2).

School enrollment data submitted from Local Education Agencies, revealed that in each of the eight enrollment categories the mean was greater than the median, creating positively skewed distributions (Table 3). The mean total enrollment of 15,333 was misleading for quartile deviations indicated that 50% of the responding Local Education Agencies enrolled less than 5200 students. By removing the two positive extreme enrollments, the mean drops to 9,654, with 50% of the Local Education Agencies serving less than 540 special education students. The range of total school enrollment was from 90 to 224,339, while the range of total Hispanic enrollment was from 32 to 87,016. Application of the statistic kurtosis, revealed that in all cases kurtosis was greater than three and frequently considerably larger, providing evidence that all distributions were peaked and positively skewed (Table 4).

Nonresponse Characteristics

The analysis of characteristics of nonresponse areas is important to the accurate interpretation of findings, for any nonresponse introduces a serious bias into the results of the study unless the investigator can honestly state that characteristics of nonresponding areas did not differ greatly from those of responding areas.

For the present study, 47 Administrators of Special Education representing approximately 600,000 students, including approximately 200,000 Hispanic students, did not respond to the questionnaire

Table 2

Descriptive Data on School Enrollments from Responding Local Education Agencies

Enrollment	Univariate Data					
	N[a]	Sum	M	SD	Mdn	r
Total School Enrollment	(101)	1,567,006	15,515	33,327	5,200	90-224,339
Total Hispanic Enrollment	(100)	631,425	6,314	11,467	2,500	32- 87,016
Total Special Education Enrollment	(95)	162,852	1,714	3,850	540	8- 24,500
Total Hispanic Special Education Enrollment	(94)	58,983	628	1,125	273	2- 7,590
Total Learning Disabled	(90)	56,830	632	1,213	297	5- 7,916
Total Hispanic Learning Disabled	(90)	26,426	294	505	100	0- 3,008
Total EMR Enrollment	(90)	15,476	172	540	36	0- 4,559
Total Hispanic EMR Enrollment	(90)	5,113	57	116	20	0- 873
Total Gifted/ Talented	(52)[b]	18,234	351	834	46	0- 4,948
Total Hispanic Gifted/Talented	(48)[b]	3,329	69	180	9	0- 1,084

[a]Numbers in parenthesis indicate the number of LEA's who completed the item.

[b]Less than 51% of the responding LEA's completed this item.

Quartile Deviation Describing Variability of School Enrollments

of Responding Local Education Agencies (df = 4)

Quartile	Total School Enrollment	Total Hispanic Enrollment	Total Special Education Enrollment	Total Hispanic Special Education	Total SLD	Total Hispanic SLD	Total EMR	Total Hispanic EMR	Total Gifted	Total Hispanic Gifted
Maximum (100%)	224,339	87,016	24,500	7,590	7,916	3,008	4,559	873	4,948	1,084
Q_3 (75%)	15,333	6,375	1,200	591	531	320	100	57	283	44
Median	5,200	2,500	540	273	273	100	36	20	46	9
Q_1 (25%)	2,000	691	164	52	52	25	16	7	10	2
Minimum (0%)	90	32	8	2	2	0	0	0	0	0

Table 4

Symmetry (skewness) and Peakedness (kurtosis) of School Enrollment of Responding Local Education Agencies

Local Education Agencies	Univariate Statistics	
	Skewness[a]	Kurtosis[b]
Total School Enrollment	4.9	27.45
Total Hispanic School Enrollment	4.5	26.32
Total Special Education Enrollment	4.5	22.46
Total Hispanic Special Education Enrollment	3.9	18.2
Total Enrollment in SLD	4.1	19.25
Total Hispanic Enrollment in SLD	3.2	11.87
Total Enrollment in EMR	6.6	50.65
Total Hispanic Enrollment in EMR	4.9	29.36
Total Enrollment Gifted/Talented	4.1	18.94
Total Enrollment Gifted/Talented	4.5	22.52

[a]Normal = 0

[b]Normal = 3

(reasons were discussed in Chapter 1). In an effort to examine enrollment characteristics of the nonresponding areas, means (M) for total school enrollments and Hispanic enrollments were compared to means (M) of responding populations (Table 5).

Clearly, the districts from the City of New York provided the lowest response rate. This fact introduces an element of bias into the interpretation of the findings on the Hispanic population as a whole, but more importantly, because New York City was selected to describe phenomena relating to the subculture of Puerto Rican students, any comparisons made among the three subgroups, must be made cautiously. From the City of New York, nonresponse represented a total school enrollment of 203,000, with an Hispanic enrollment of 70,000. The range of nonresponding LEAs was from 11,121 to 27,679, while the range of responding New York City districts was 12,527 to 45,000. Mean total school enrollment for nonrespondents was 16,000, considerably smaller than the M for responding districts of 22,465. While the burrough of Manhattan had the highest response rate, Bronx had the lowest.

Nonresponse from Southwestern United States was 27.7% or 33 of the 119 mailed questionnaires to Texas and New Mexico. Nonrespondents from New Mexico[1] represented approximately a total school enrollment of 130,000, M of 7,000 and a range of 90 to about 80,000, as compared to the respondents enrollment with a M of 1990. Nonresponse characteristics

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[1] Racial/Ethnic Distribution of Public School Students and Staff, New York State 1979-80. State Education Department, Albany. New York. (Given only for New York City, therefore, individual district data were secured by telephone from State personnel.

from Texas[2] revealed that contrary to New Mexico, large school districts responded. One questionnaire was "lost" from one of the largest schools in Texas, some 200,000 enrollment, 60% of whom are Hispanic. According to the Administrator of Special Education, the questionnaire had been completed and returned to the investigator; however, it was not received and the request for a completed replacement went unheeded.

Of the nonresponding Local Education Agencies from Florida (3), total school enrollment equaled 200,000 with about six percent Hispanic population. Respondents represented a considerably larger Hispanic population.[3] The one nonresponse from Massachusetts was not unlike those five respondents.[4] Essentially, population Ms of respondents revealed them to be higher than nonrespondents, with the exception of New Mexico. By removing one large nonresponding Local Education Agency, the mean for New Mexico fell to within the respondents M. If the one "lost" Texas response is removed from analysis, M drops to become nearly equal with the responding populations. With the exception of the relatively low response rate from the City of New York, it can be suggested that nonresponse characteristics are not too dissimilar from response characteristics.

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[2] New Mexico School District Profile: 1978-79, New Mexico State Department of Education, Santa Fe, New Mexico.

[3] Statistical Brief: Fall Survey of Students in Texas Public Elementary and Secondary School Districts, 1980-81 (microfiche) Texas Education AGency, Austin, Texas.

[4] Students by Racial/Ethnic Category, Statistical Report, Series 80-15, March 1980, Florida State Department of Education, Tallahassee, Florida.

Table 5

Enrollment Means (M) of Nonresponding Local Education Agencies[a] as Compared to Responding Local Education Agencies by State; Response/Nonresponse Given in Parenthesis (Ns)

State	Responses (Usable)		Nonresponses	
	Total Population M	Total Hispanic M	Total Population M	Total Hispanic M
New York (9)	22,466	11,112	(10) 17,000	6,000
Texas (43)	13,194	8,574	(16) 8,000	4,000
New Mexico (38)	1,990	1,043	(17) 7,000	2,500[b]
Florida (6)	62,935	15,687	(3) 50,000	3,500
Massachusetts (5)	23,980	2,606	(10) *8,000	*800

[a]Approximations

[b]By removing one LEA, M = 1900

*Total population

Research Question Number One

1. What is the proportionate representation of Hispanic students in special education and gifted programs in the four states of New Mexico, Texas, Florida, and Massachusetts, and the cities of New York and Philadelphia?

A. Do differences in enrollment data vary according to whether the Hispanic students are of Cuban, Mexican, or Puerto Rican descent?

B. How do the findings of the study compare with the national incidence rate?

Representation

The terms "overrepresentation, underrepresentation, and proportionate representation" are used somewhat whimsically throughout the literature, with few attempts on the part of writers to provide definitions, either mathematically or philosophically. Indeed, a user or reporter of such data would be wise to ask "proportionate to what?" . . . as related to Hispanic enrollment in the nation, or within each state, or within Local Education Agencies? "Proportionate" as compared to Anglos, to Blacks, or to the non-Hispanic populations as a whole? Furthermore, the words "over" and "under" have earned a somewhat pejorative connotation, while the term "proportionate" has been viewed more positively. It may have been prudent to have selected terms of a less evaluative nature, such as "standard, plus or minus," in order to underscore the fact that the investigator did not seek any cause/effect relationships, nor seek to make judgments as to whether any one of the categories was appropriate. In the end, the writer

chose to retain the use of the terms, principally because they have been used in similar studies, and hold a representative meaning for most readers.

For the purposes of the present study, representation was defined as the comparison of Hispanic to non-Hispanic enrollments in special education as a whole, then specifically, enrollment in programs for the educable mentally retarded, specifically learning disabled, and gifted/talented. This comparison was computed for each Local Education Agency, based on the enrollment data submitted on each questionnaire. From these calculations, a classification label of "proportionate," "over," or "under" was assigned to each Local Education Agency. The formula for determining the classification assigned was patterned after the formula used in the hearing of Massachusetts vs Holyoke Public Schools (1979). In this study the ratio of non-Hispanic special education enrollment to non-Hispanic total school enrollment was subsequently compared to the ratio of Hispanic special education enrollment to Hispanic total school enrollment. The first ratio (given in percent) became the criterion from which to apply plus or minus 20%, in order to create the three classificatory intervals or labels of "proportionate," "over," or "under" representation. For example, applying the formula to actual data submitted on a questionnaire, it was found that the total non-Hispanic special education enrollment was 1,150, the total non-Hispanic school enrollment was 33,000 giving a ratio of 3.5%. This figure became criterion from which to compare the enrollment data. It was revealed that the total Hispanic special education enrollment was

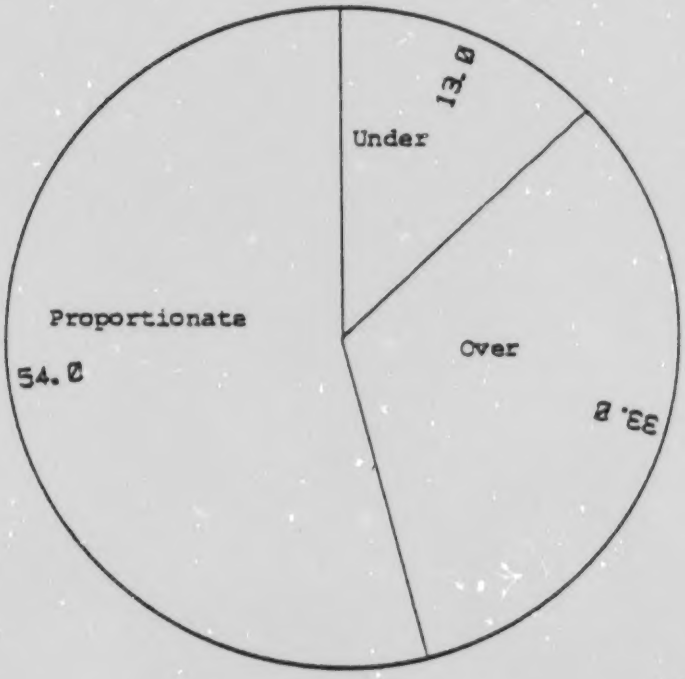
350 and the total Hispanic enrollment was 12,000 giving a ratio of 3%. Determined then whether 3% fell within plus or minus 20% of criterion as seen below:

2.8%	3.5%	4.2%
(-20% of criterion) "Under"	(criterion) "Proportionate"	(+20% of criterion) "Over"

This Local Education Agency was assigned the index of "proportionate" because 3% fell within 20% of criterion. This procedure was performed with each Local Education Agency for each category of special education, educable mentally retarded, specific learning disabled and gifted/talented. The method, albeit somewhat imprecise, permitted the investigator to conduct contingency analysis in an effort to determine what relationships, if any, existed between the representation classification and the frequency of use of accommodations made in the assessment process.

Application of the formula to submitted data revealed that 14% of the Local Education Agencies underrepresented Hispanic students in special education, while 24% overrepresented and 62% proportionately represented Hispanic students (Figure 2). In programs for the specific learning disabled it was found that 20% overrepresented Hispanic students, 18% underrepresented, and 61% proportionately represented Hispanic students (Figure 3). Whereas, in programs for the educable mentally retarded, 13% of the Local Education Agencies were classified as underrepresenting Hispanic students, 33% as overrepresenting and 54% proportionately representing Hispanic students in programs for the educable mentally retarded.

Enrollment of Hispanic Students in Educable Mentally Retarded Programs (N=85)



Enrollment of Hispanic Students in Special Education (N=93)

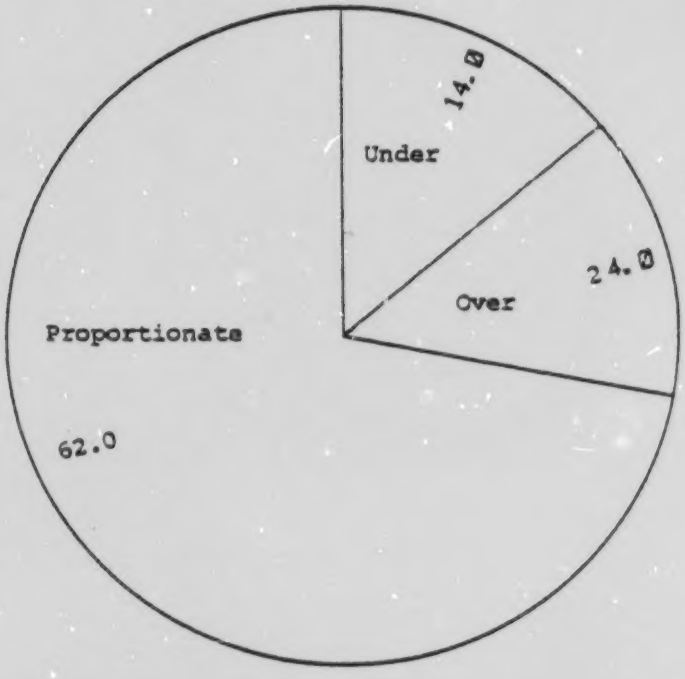
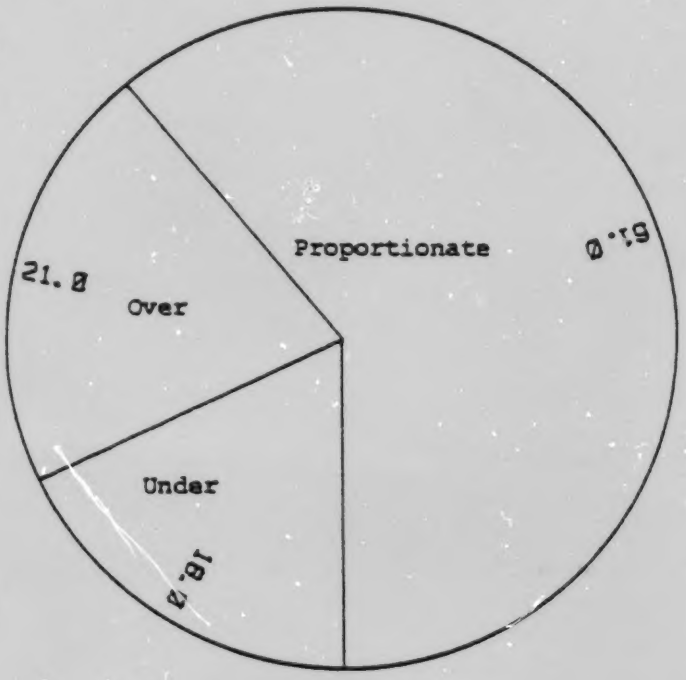


Figure 2. Enrollment patterns in EMR and Special Education.

Enrollment of Hispanic Students in Specific Learning Disabilities Programs (N=89)



Enrollment of Hispanic Students in Gifted/Talented Programs (N=49)

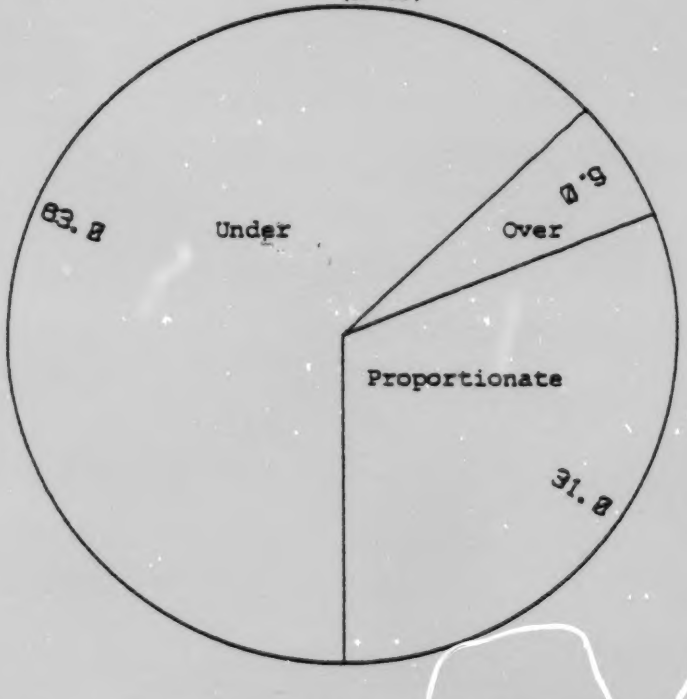


Figure 3. Enrollment patterns in SLD and gifted/talented.

Findings reported on the enrollment of Hispanic students into programs for the gifted/talented must be done cautiously, for of the 101 usable questionnaires, only 49 respondents completed the two items requesting information on gifted/talented enrollments. A majority of respondents also wrote on these items, that they "didn't know," or "data not available" leading the writer to hypothesize that in general, Administrators of Special Education do not have access to or control over information on gifted enrollments. Application of the representation formula to the 49 Local Education Agencies revealed that 63% underrepresent Hispanics in Gifted programs, 6% overrepresented and 31% proportionately represented Hispanic students into gifted/talented programs.

The findings in all programs just reported, must be examined and interpreted very cautiously, due not only to the inherent difficulties in survey research, but moreover to the imprecision and a lack of standardization of the formula applied in order to determine representation.

National Incidence Rate

In order to compare enrollment data from the present study with national incidence rates, information from the General Accounting Office Report (GAO Report, September 30, 1981) was analyzed. The GAO Report revealed that 8.16% of the total school age population were enrolled in special education (excluding 89:313 students) in 1980, and of that total, 36% were classified as specifically learning disabled. In contrast, data from the present investigation revealed that total enrollment in special education equaled 10.4%, of which 34% were classified as specifically

learning disabled. The GAO Report also noted that of the total Hispanic enrollment in special education, 44% were classified as specifically learning disabled, and 16.7% were labeled educable mentally retarded. These data, as compared with data from the present study, revealed that Hispanic learning disabled students also comprised 44% of the total special education enrollment, however, only 8.6% of the special education total were categorized as educable mentally retarded. Interpretation of this final figure is tenuous, because the State of Texas employs the more general term of mental retardation, rather than the specific label of educable mentally retarded. Other implications as related to the GAO Report are discussed in Chapter 5.

Cuban-Americans, Mexican-Americans, and Puerto Ricans

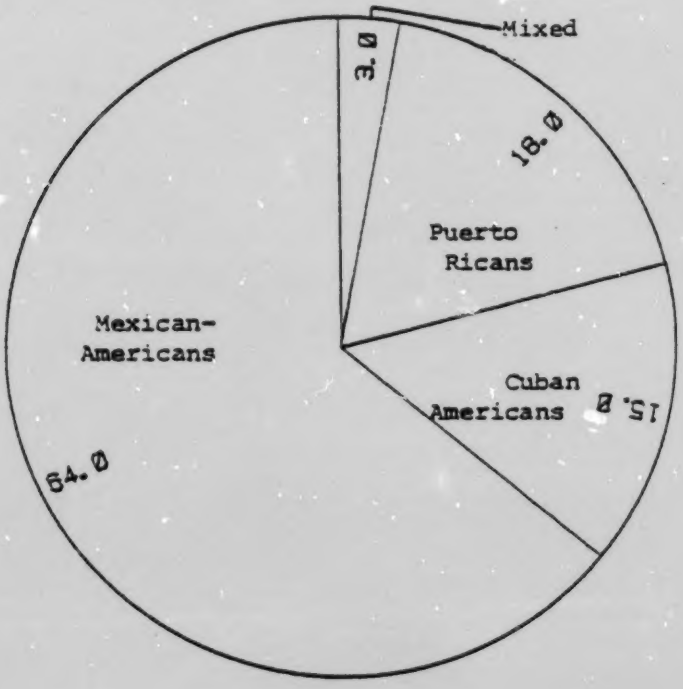
To make comparisons among the three subcultures, respondents were grouped--by Cuban, Mexican, or Puerto Rican dominance (see Chapter 3 for detailed discussion). Essentially, a three pronged approach was designed: firstly, questionnaires were mailed to areas of the United States in which one of the subcultures predominated. Secondly, one item was included on the questionnaire which asked the respondent to estimate the percentage of Hispanic students which fell into each subculture. Finally, if the item requesting subculture was incomplete on the returned questionnaire, the writer contacted other agencies in order to determine the predominate, if any, Hispanic subculture. For example, the Department of Planning and Management for Dade County Florida provided data for estimating the dominate subculture for that community. Of the 681,000 Hispanics in Dade County, 507,234 were of Cuban descent, for a 75% Cuban representation.

A 60% criterion was selected for assigning subculture dominance to each Local Education Agency. Actually, more than 70% of the respondents indicated that subculture density exceeded criterion. Application of this 60% criterion revealed that the percent of Hispanic subcultures in the present study was not too dissimilar from the subculture representation found in the United States (Figure 4). According to the U.S. Census Bureau (1978), Hispanics included 60% Mexican-Americans, 15% Puerto Ricans, 6% Cuban-Americans, 12% "Other," and 7% Central or South Americans. In the present study, subcultures represented 64% Mexican-Americans, 18% Puerto Ricans, and 15% Cuban-Americans.

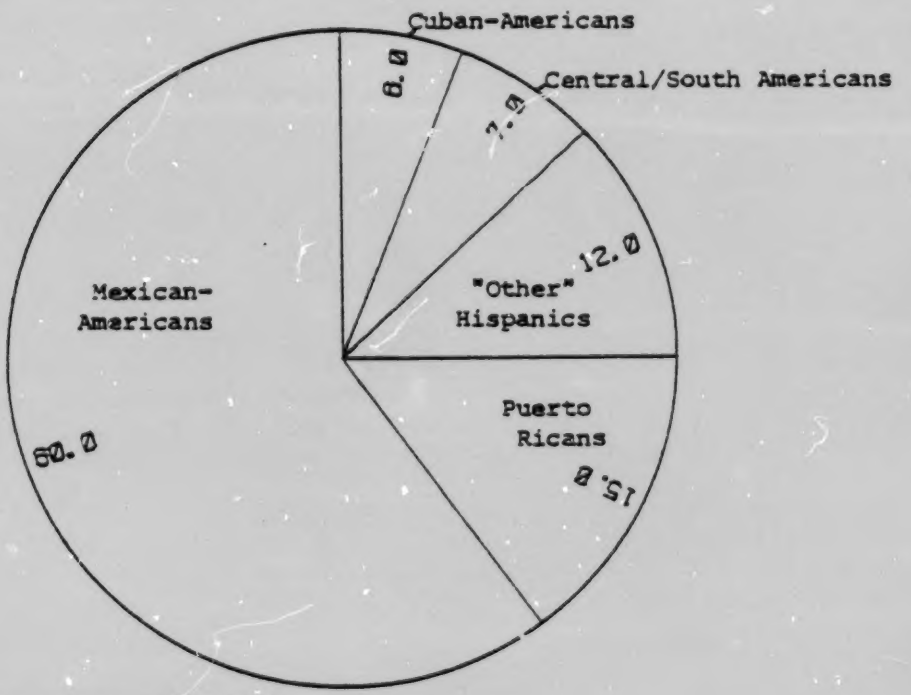
It was determined that 74 Local Education Agencies representing 410,818 Hispanic students emerged as predominately of Mexican descent, 14 Local Education Agencies representing 115,392 Hispanic students were predominately of Puerto Rican descent, and four Local Education Agencies representing 93,171 students were predominately of Cuban descent, while eight respondents could not be classified as having any dominate subculture.

Descriptive analysis of enrollment data by subcultures revealed that the spread of enrollment in Local Education Agencies of Cuban dominance was extreme, and positively skewed. Data submitted on questionnaires were analyzed in order to compare the percent of Hispanics to non-Hispanics enrolled in special education and specifically in programs for the educable mentally retarded, specific learning disabled or gifted/talented; first across subcultures, then within subcultures (Tables 6 & 7).

Hispanic School Enrollment from Responding LEAs by Subculture



Hispanic Population in the United States by Subcultures*



* United States Census (1978)

Figure 4. Hispanic enrollment by subcultures.

Application of the formula for determining representation of non-Hispanics to Hispanics in special education by subculture revealed that those Local Education Agencies whose Hispanic populations were predominately of Cuban background, had the lowest percent enrolled in special education (8.8%), whereas the highest percent enrollment emerged from those Local Education Agencies whose Hispanic enrollment was of Mexican descent (10.4%). Looking, however, at the non-Hispanic enrollments as compared to Hispanic enrollment within subcultures , the reverse was found (Table 8).

Data analysis also revealed that the highest percent of Hispanic students enrolled in programs for the specific learning disabled, occurred in Local Education Agencies whose Hispanic enrollment was predominately of Mexican background (5%), while the lowest percent emerged in Local Education Agencies whose Hispanic population was predominately of Puerto Rican descent (2.3%). Comparing data for Hispanic enrollment into programs for the educable mentally retarded across subcultures, found that those Local Education Agencies whose Hispanic population was predominately of Puerto Rican descent enrolled the highest number (1%), although differences among groups were very small (Table 8). Finally, examining data for differences between non-Hispanic and Hispanic enrollments across subcultures, the greater differences occurred in special education between those respondents whose Hispanic populations were either of Puerto Rican or Cuban-American, while enrollment disparities in programs for educable mentally retarded and specific learning disabled were minimal.

Table 6

Numbers of Hispanic Students Enrolled, First by Total Then in Special Education: By Subculture

Subculture[a]	Total Hispanic Enrollment					Special Education				
	Sum	M	SD	Mdn	Range	Sum	M	SD	Mdn	Range
Mexican-Americans (74)	401,818	5,430	8,711	2,360	32-49,295	41,922	567	943	242	5-5,062
Cuban-Americans (4)*	93,171	23,293	42,534	2,967	222-87,016	8,192	2,048	3,701	284	35-7,590
Puerto Rican (14)	115,392	8,242	6,422	7,505	250-21,000	8,195	585	492	457	23-1,500

*LEA enrolls 87,000 Hispanic students, a number which greatly influences the M.

[a]Application of 60% criterion: Does not infer that each student is of Cuban, Mexican, or Puerto Rican descent.

Table 7

Numbers of Hispanic Students Enrolled in Specific Learning Disabilities or Educable Mentally Retarded

Subculture[a]	Specific Learning Disabilities					Educable Mentally Retarded				
	Sum	M	SD	Mdn	Range	Sum	M	SD	Mdn	Range
Mexican-Americans (74)	20,450	276	447	95	0-2,057	3,271	44	111	17	0-873
Cuban-Americans (4)*	3,105**	776	1,488	41	15-3,008	551**	138	219	43	3-462
Puerto Ricans (14)	2,654	190	224	109	2-675	1,095	78	94	53	20-312

[a]Application of 60% criterion: Does not infer that each student is of Cuban, Mexican, or Puerto Rican descent.

*One LEA enrolls 87,000 Hispanic students, a number which greatly influences the M.

**One returned questionnaire provided enrollment data in percent for SLD and EMR.

Table 8

The Comparison of Non-Hispanic to Hispanic Student Enrollment in Special Education, Specific Learning Disabilities, or Educable Mentally Retarded: By Subculture Given in Percent

Programs	Subculture[a]		Subculture[b]		Subculture[c]	
	Non-Hispanic (Predominately Cuban)	Hispanic	Non-Hispanic (Predominately Mexican)	Hispanic	Non-Hispanic (Predominately Puerto Rican)	Hispanic
Special Education	11.9%	8.8%	9.7%	10.4%	11.5%	7%
Specific Learning Disabilities	3.9%	3.3%	4%	5%	2.4%	2.3%
Educable Mentally Retarded	1.2%	.6%	.7%	.8%	1.3%	1%

[a] Represents four LEAs, 93,171 Hispanic students predominately Cuban descent.

[b] Represents 74 LEAs, 401,818 Hispanic students predominately Mexican descent.

[c] Represents 14 LEAs, 115,392 Hispanic students predominately Puerto Rican descent.

Research Question Number Two

2. With what frequency do Local Education Agencies implement the following modifications or alternatives in order to provide protection in evaluation procedures for the Hispanic student?

A. Use of a language dominance or language proficiency test

B. Use of culture-fair tests

C. Use of criterion-referenced measures

D. Use of pluralistic assessment measures

E. Use of subscales from more comprehensive tests

F. Matching of examiner to examinee in ethnicity or language

G. Use of an interpreter during the testing situation

H. Use of available intelligence tests in Spanish

I. Use of local, ethnic norms for scoring

J. Place emphasis on the improvement of test-taking skills

Items one through ten on the questionnaire were designed to describe the frequency of use of selected accommodations or alternatives implemented in order to provide protection in evaluation procedures for the Hispanic student (Appendix D). The following ranked and ordinal choices were given to respondents:

ALMOST ALWAYS: Occurs 81-100% of the time

FREQUENTLY: Occurs 61-80% of the time

OCCASIONALLY: Occurs 41-60% of the time

SELDOM: Occurs 21-40% of the time

ALMOST NEVER: Occurs 0-20% of the time

For quantifying information for data analysis, almost always was coded as a five, with almost never coded a one. Group means for each variable were computed (Table 9). Summary percentage totals for each question on the survey instrument are shown in Appendix E. Histograms were selected to display distribution of data in percent, first by the three subcultures, followed by a darker shading representing total responses regardless of Hispanic subculture. In approaching these figures, the reader must keep in mind the somewhat imprecise manner in which subcultures were determined, that responses representing the Puerto Rican school population were relatively low, and finally that the Cuban-American school enrollment of 93,000 students, was represented by responses from four Local Education Agencies.

Assessment Procedures for the Hispanic Student

The determination of the Hispanic student's dominate or most proficient language is often cited as the first and most important step in the assessment process. Findings of the study give empirical support to this assumption. Of the 101 completed questionnaires, 91% almost always or frequently required language dominance assessment, while 2% noted that they almost never or seldom used this type of assessment. Of these 2%, each respondent indicated that his/her Hispanic populations did not speak enough Spanish to consider this measure appropriate. As Figure 5 indicates, differences among the three subcultures on the frequency of use of the language proficiency assessment were minimal.

The two accommodations least frequently employed in the assessment process were the practice of computing local ethnic norms (mean 2.05)

Table 9

Group Mean Given for Responses of Administrators of Special Education to Selected Variables and (N's)

Variable	(N's)	Group Mean[a]
Pluralistic assessments	(101)	3.18
Criterion-referenced tests	(102)	3.19
Culture-fair tests	(94)	3.55
Language proficiency tests	(101)	4.64
Improve test-taking skills	(100)	2.46
IQ tests in Spanish	(99)	3.15
Interpreter	(101)	3.45
Match examiner to examinee	(101)	3.54
Nonverbal subscales	(101)	4.0
Local ethnic norms	(100)	2.05
Classroom observation	(100)	3.46
Referral Committee includes Hispanic	(101)	4.28
Multidisciplinary includes Hispanic	(99)	4.25
IEP Committee includes Hispanic	(100)	4.43
Multidisciplinary parental attendance	(100)	3.82
IEP parental attendance	(100)	3.86

[a]Derived from ordinal scale of measurement used on the questionnaire and rated as follows:

Almost Always	(81-100%)	5
Frequently	(61-80%)	4
Occasionally	(41-60%)	3
Seldom	(21-40%)	2
Almost Never	(0-20%)	1

and the practice of providing the Hispanic student with activities to increase test-taking skills (Figures 6 and 7). These findings support much of Bernal's assumptions (1977). Although a high level of agreement was indicated on the frequency of the administration of the language dominance measurements, there was considerably less agreement on the use of culture-fair tests, criterion-referenced measures or nonverbal tests (Figures 8, 9, and 10). Only 29% of the 101 respondents indicated that they almost always used a culture-fair test, while 46% almost always used the criterion-referenced measure, and 43% almost always employed nonverbal tests. Eight percent did not complete the item on culture-fair usage, often commenting "There are no such tests." Considerable differences were revealed among the three subcultures in the use of culture-fair tests, with school districts of Cuban dominance more frequently using these tests, and school districts of predominately Puerto Rican students using them the least frequently.

Criterion-referenced tests were used almost always or frequently by 66% of the Local Education Agencies, with those of predominately Puerto Rican populations using the criterion-referenced tests less than those of Mexican or Cuban dominance. Sixty-nine percent of the respondents administered nonverbal tests almost always or frequently.

Of the 100 respondents completing the item on the frequency of use of the individual intelligence test in Spanish, 48% marked almost always. There was some descrepancy among the three subcultures, with Puerto Rican populations using the Spanish intelligence test with the most frequency followed by Cuban-American and Mexican frequency (Figure 11).

Interpreters were used less frequently ($\underline{M}$ = 3.45) and in particular for those Local Education Agencies with a Cuban predominance (Figure 12).

Pluralistic assessment, or the use of an integration of substantial sociocultural information in the assessment process, was only moderately used by the respondents. Twenty-seven percent indicated that they almost always used pluralistic assessment data, while 20% noted they seldom or almost never used these measurements, with Local Education Agencies of Puerto Rican dominance leading in usage, and those of Mexican and Cuban in order of frequency (Figure 13).

Results of the study gave support to the often equivocal evidence reported as to the value of matching the examiner to the examinee in the testing situation. A little over half noted that they almost always or frequently matched the student to the examiner in either ethnicity of language ($\underline{M}$ = 3.45), whereas 31% indicated they seldom or never made this requirement (Figure 14).

In approaching Figures 5 through 18, the reader is again asked to recall the response rate limitations, in particular, the relatively low response rate from Puerto Rican populations. Essentially each Figure represents the following enrollment data, including number of responses (Ns).

Cuban-Americans, 93,000 (4)

Mexican-Americans, 400,000 (74)

Puerto Ricans, 115,000 (14)

Total Hispanic, 631,425 (101)

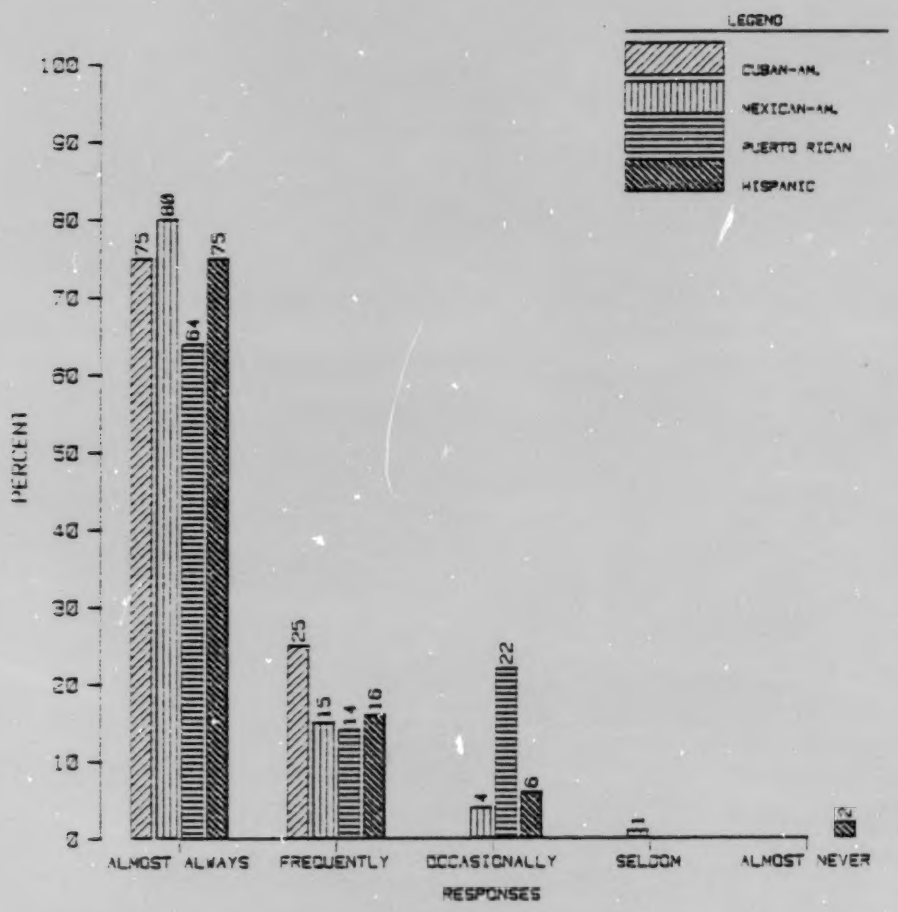


Figure 5. Frequency of use of language dominance or proficiency test.

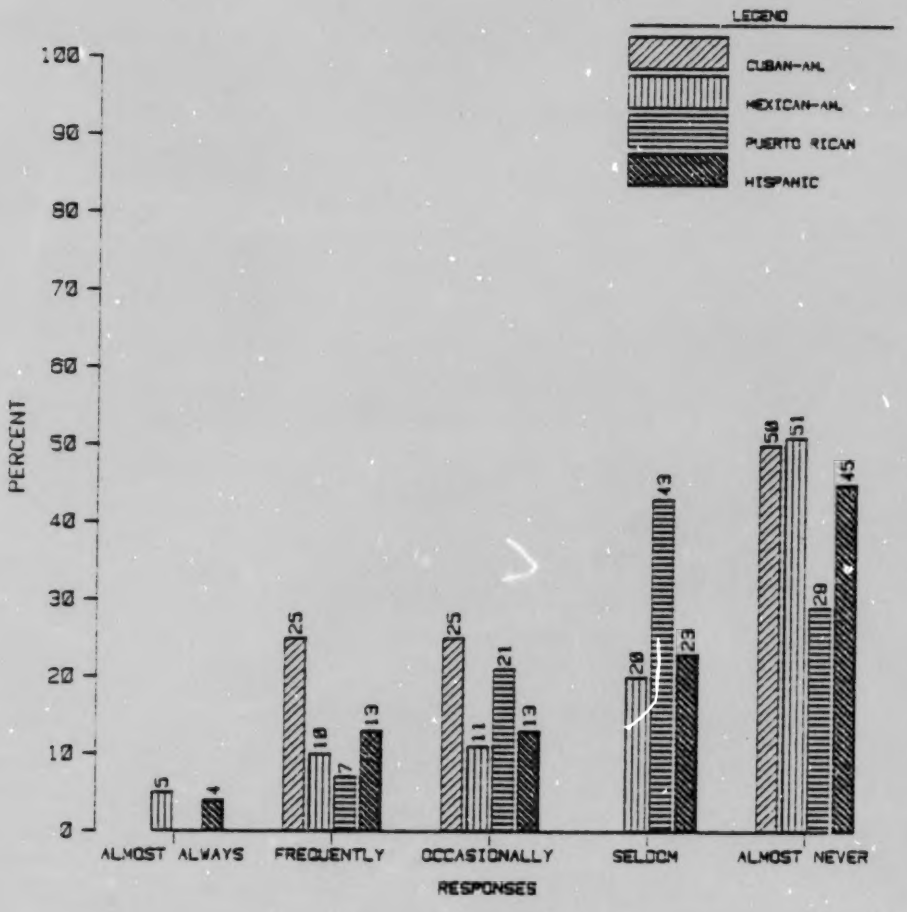


Figure 6. Frequency of use of local ethnic norms for scoring.

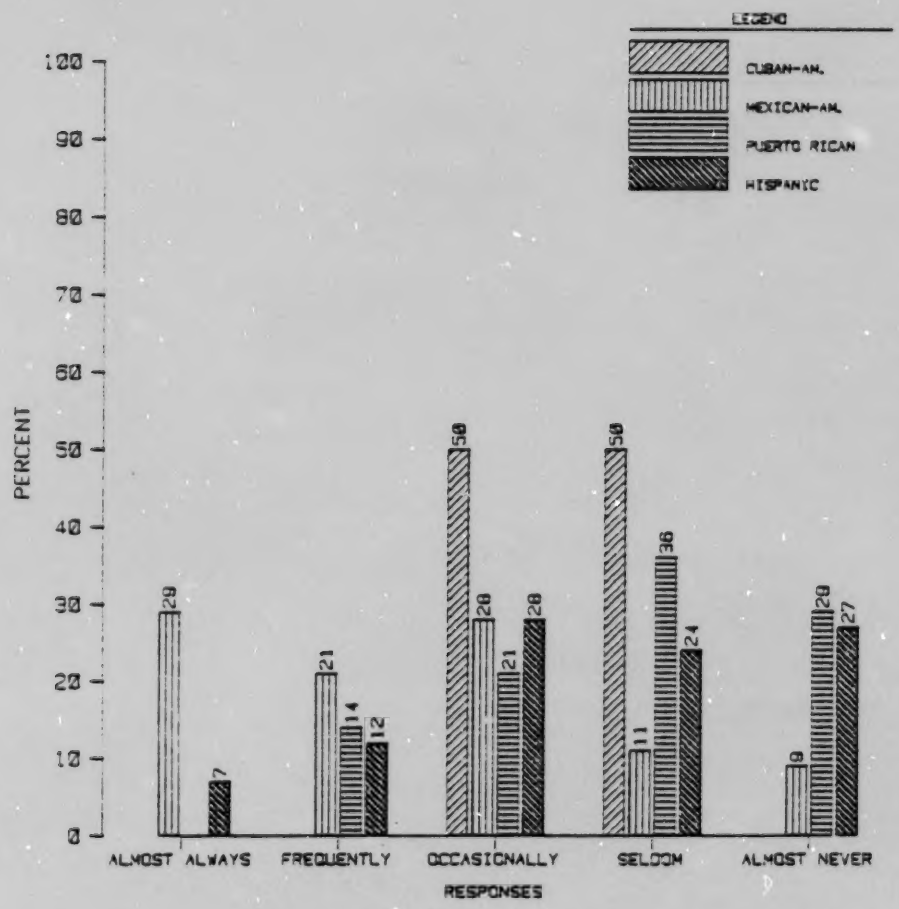


Figure 7. Frequency of providing opportunity for student to increase test-taking skills.

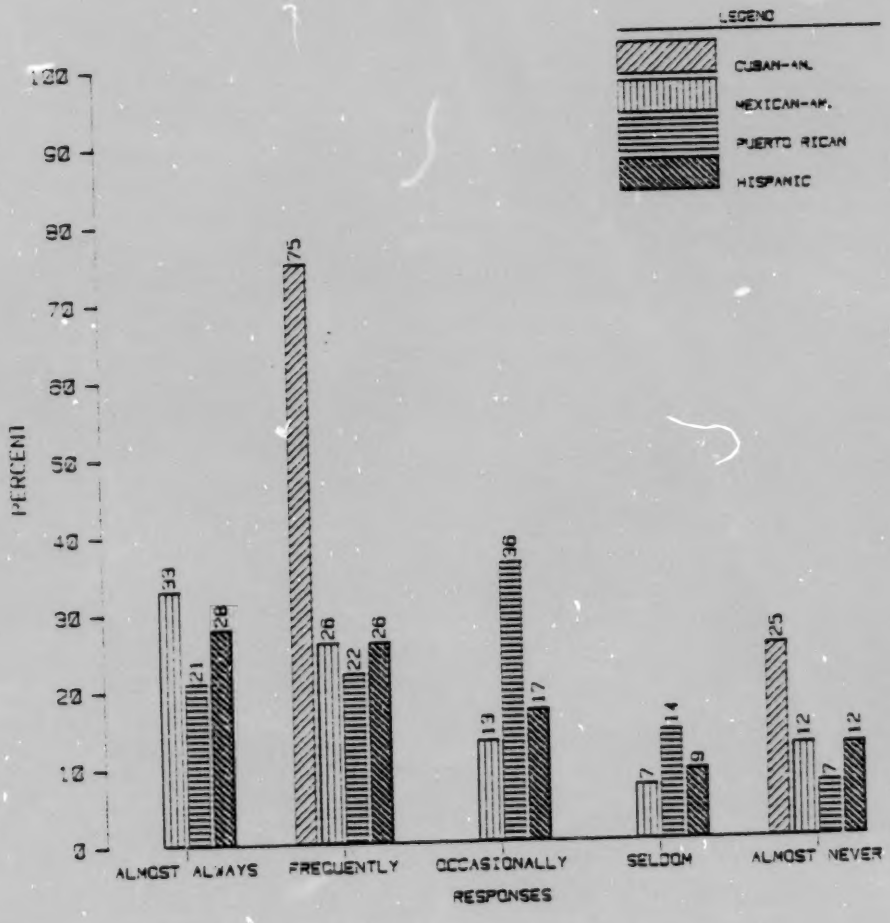


Figure 8. Frequency of use of culture-fair tests.

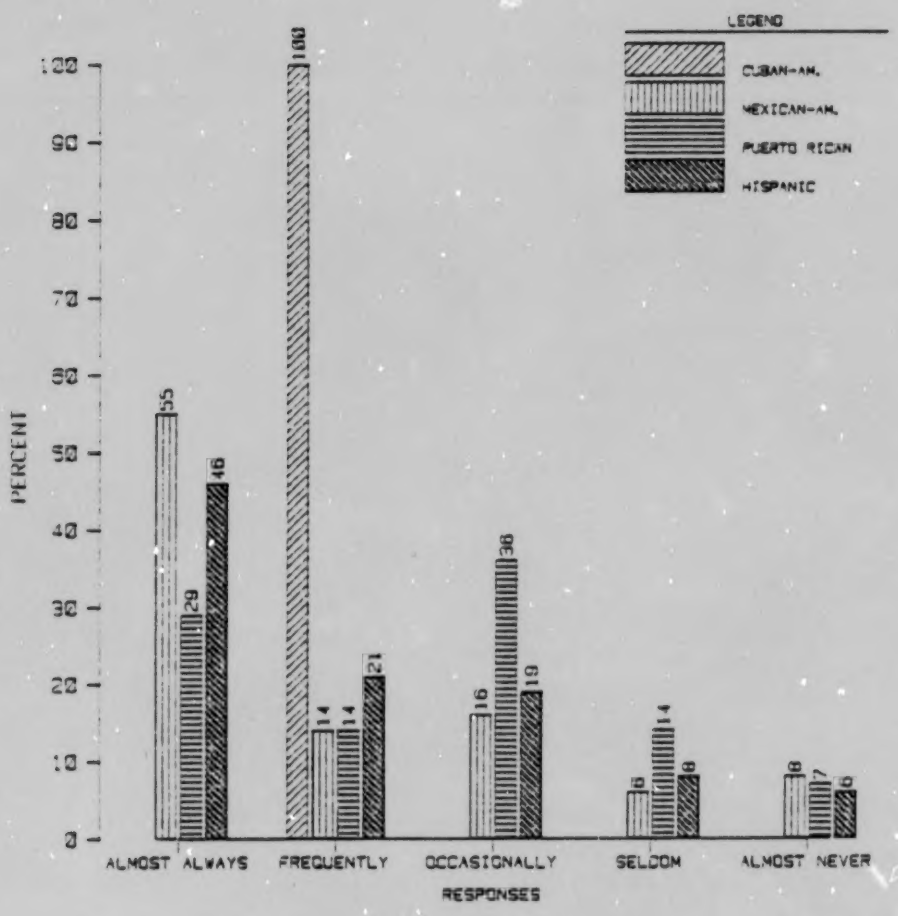


Figure 9. Frequency of use of criterion-referenced measures.

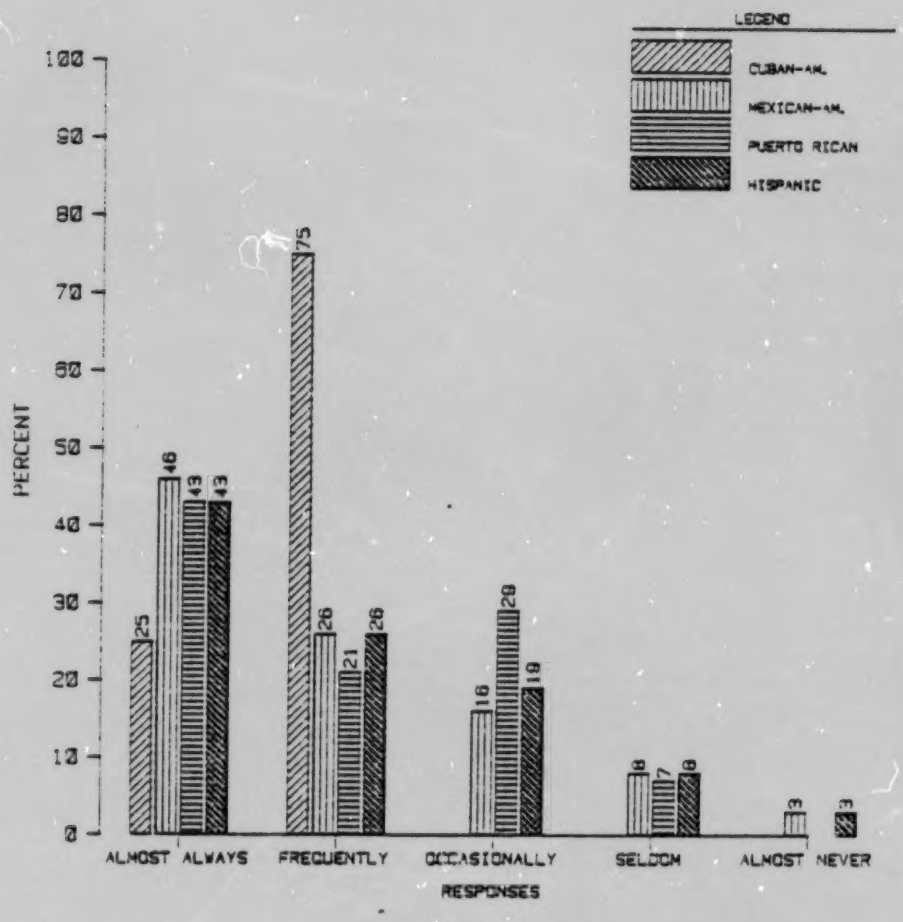


Figure 10. Frequency of use of nonverbal subscales.

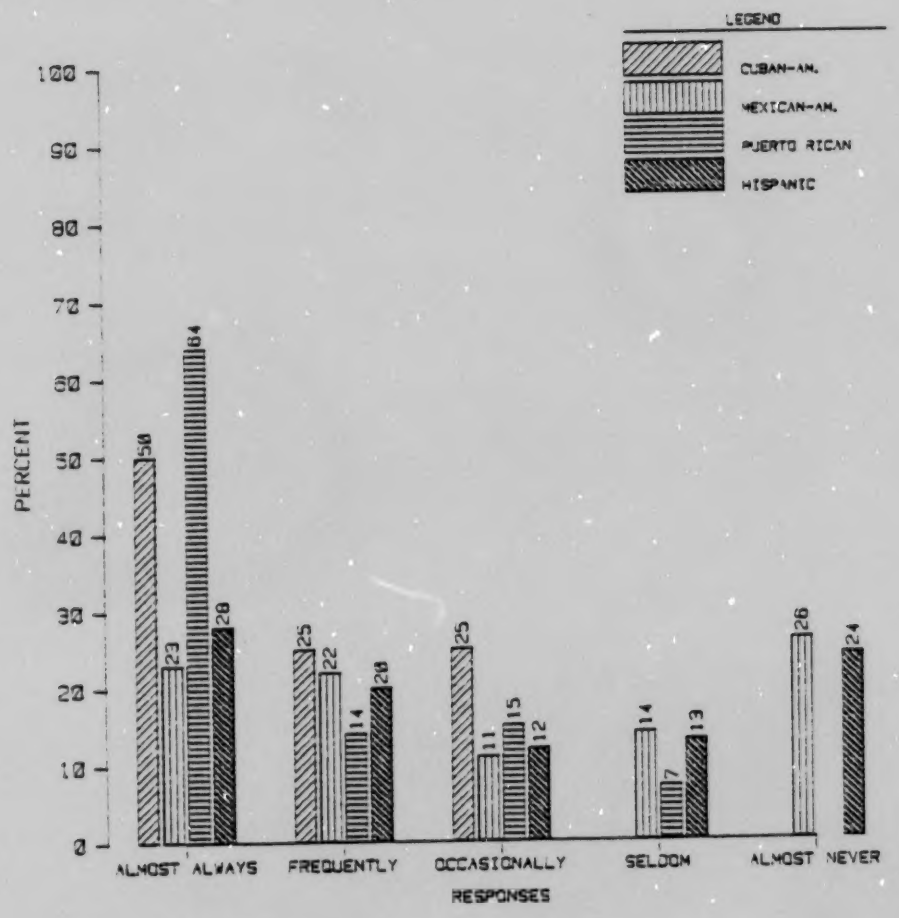


Figure 11. Frequency of use of intelligence tests in Spanish.

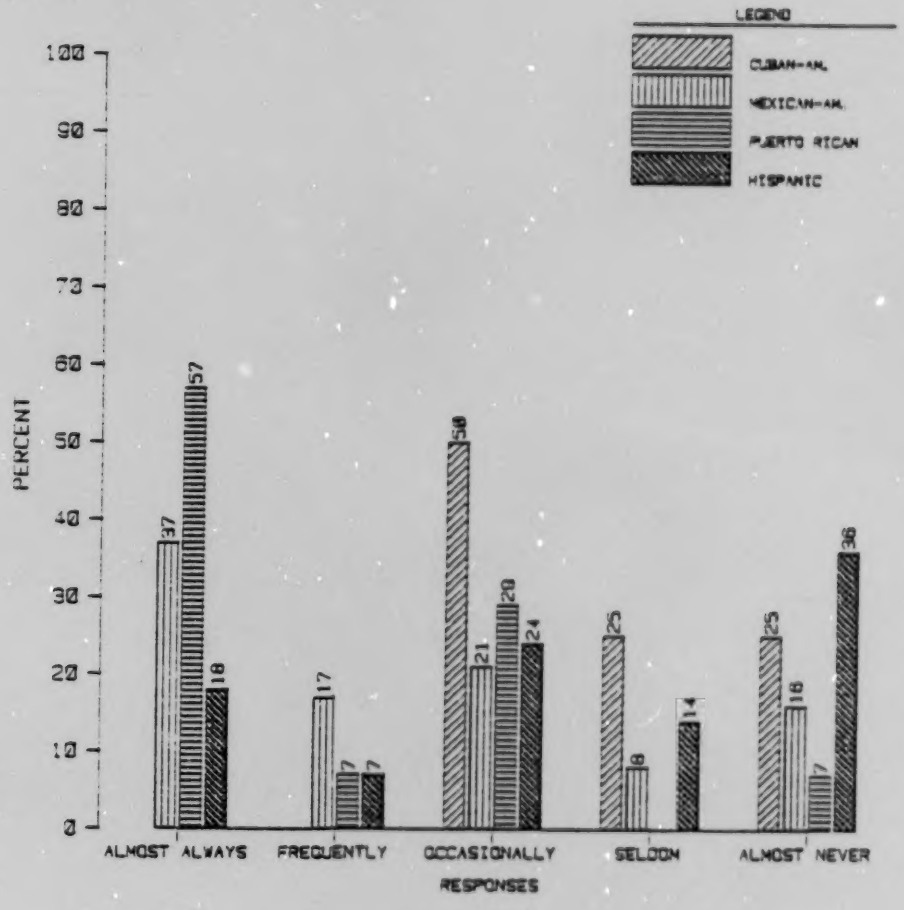


Figure 12. Frequency of use of interpreter during testing situation.

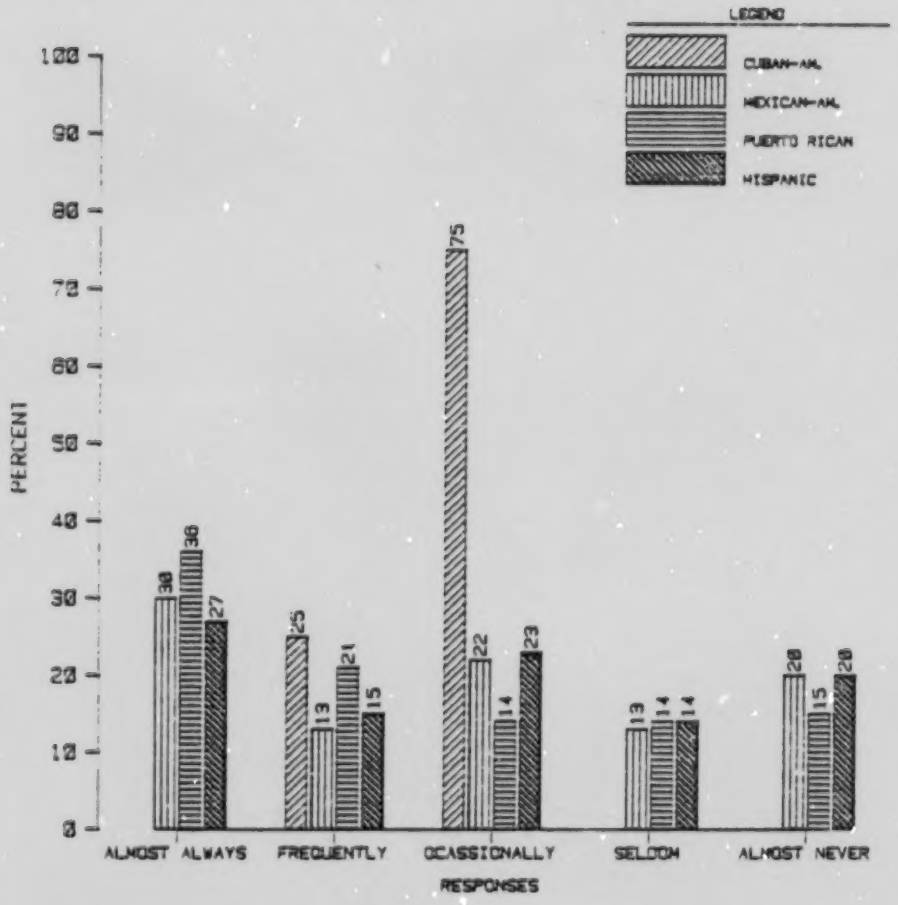


Figure 13. Frequency of use of pluralistic assessment instruments.

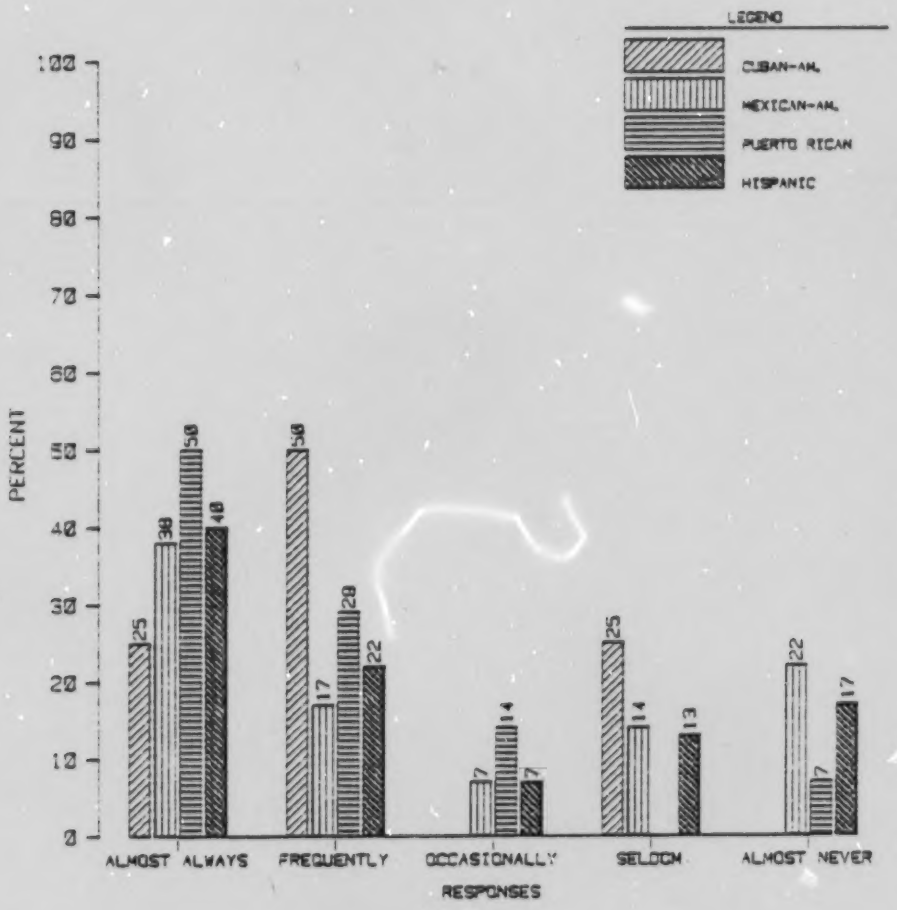


Figure 14. Frequency of matching examiner to examinee.

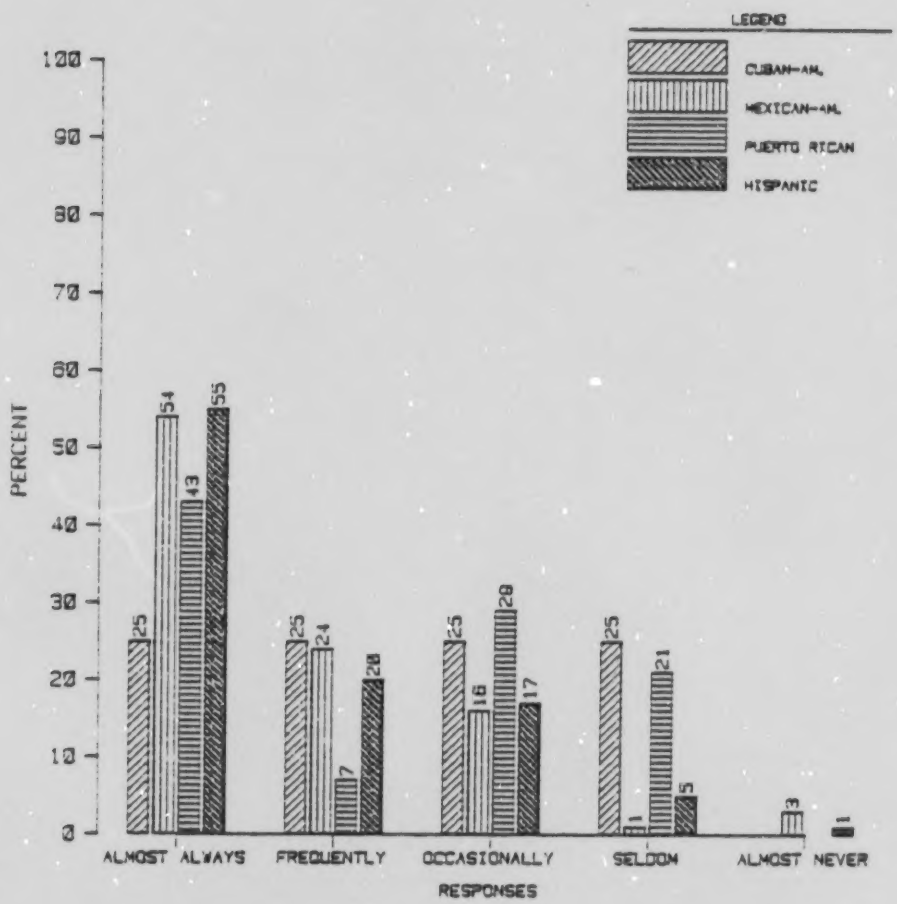


Figure 15. With what frequency does the IEP committee include a member of Hispanic background?

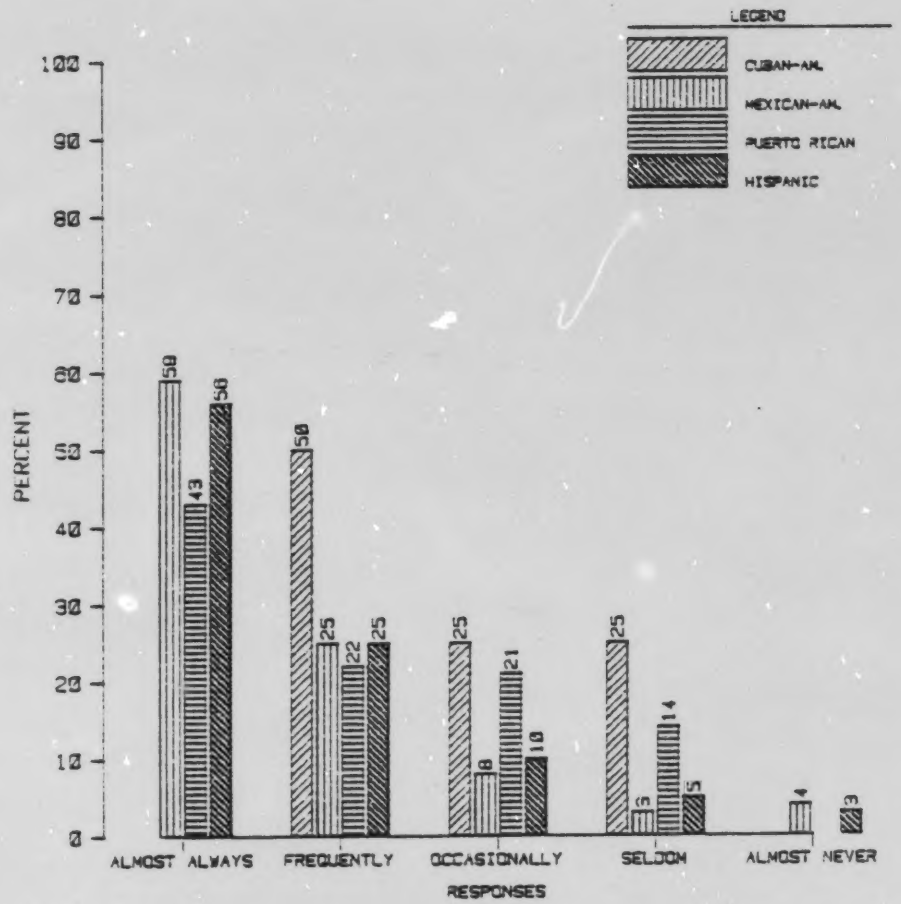


Figure 16. With what frequency does the referral committee include a member of Hispanic background?

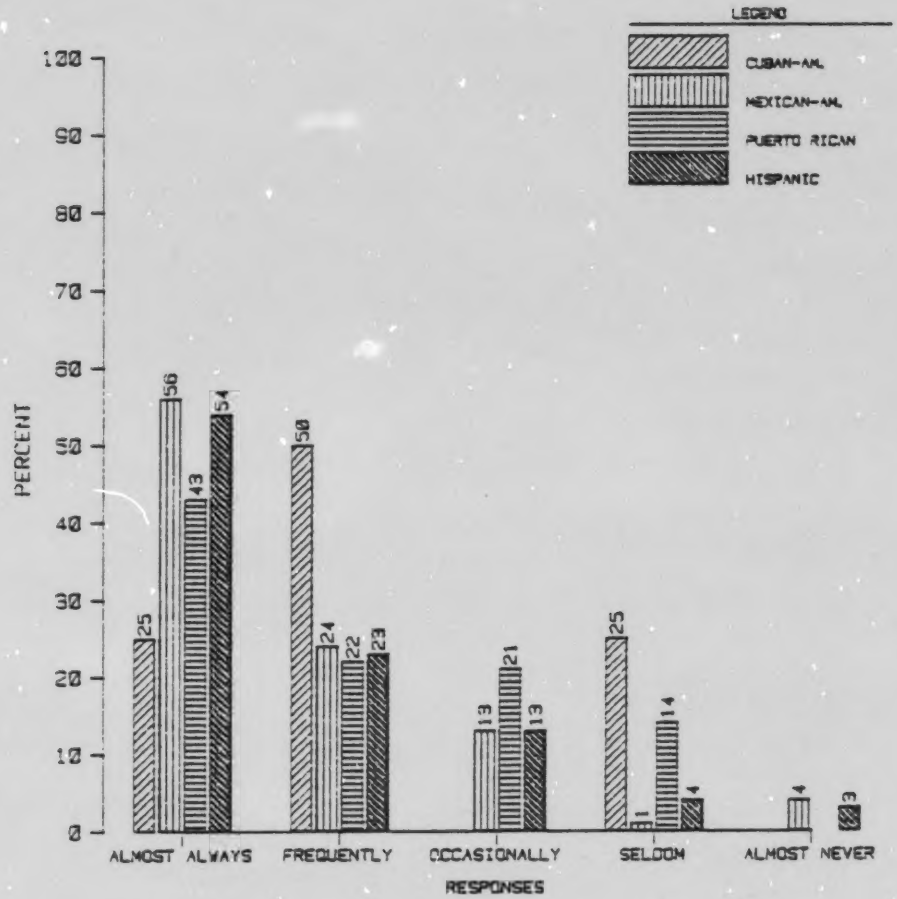


Figure 17. With what frequency does the multidisciplinary committee include member of Hispanic background?

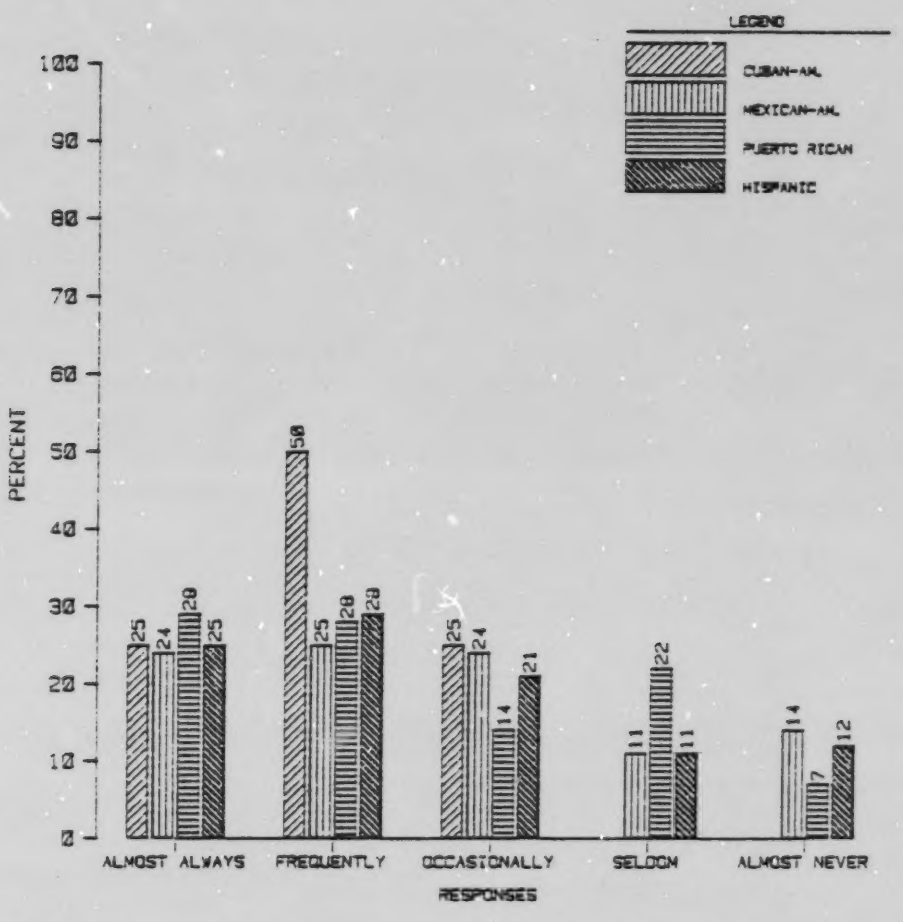


Figure 18. With what frequency is a classroom observation made with professional of Hispanic background?

Research Question Number Three

3. With what frequency do decision-making committees include a professional of Hispanic background? Are there similarities or differences among subcultures?

While the use of unreliable instruments or failure to make accommodations in the administration of tests for the Hispanic students may contribute to the collection of invalid information on the abilities of these students, a fundamental concern is also in the elimination of bias in the decision-making process. One proposed remedy to such abuse has been the suggestion that a professional of matched minority be included along points of decision-making (Ysseldyke, 1979). Four items were included on the questionnaire for the purpose of collecting information about the frequency of including a professional of Hispanic background on the decision-making committees: first, the frequency of making a classroom observation, followed by Hispanic inclusion on three committees; referral, multidisciplinary and Individualized Education Program committee.

The largest single block of high frequency of inclusion was revealed under the composition of the Individualized Education Program committee ($\underline{M}$ 4.43). Of the 100 respondents, 75% indicated that they almost always or frequently included a professional of Hispanic background (other than the parent) on this committee. Examination of data by subculture revealed that Local Education Agencies with Hispanic students of predominately Cuban descent were split on their responses, while in contrast, 78% of the school

districts of predominately Mexican-American students almost always or frequently included an Hispanic on the IEP committee (Figure 15).

Inclusion of an Hispanic on the referral committee received the second highest level of frequency (M 4.28) with 81% of the respondents noting they almost always or frequently make this requirement. While subculture differences were minimal, school districts whose Hispanic populations were predominately of Mexican descent were more likely to include an Hispanic on the referral committee, that the other two subcultures (Figure 16). Very similar responses emerged on the following item which requested level of frequency of including an Hispanic on the multidisciplinary committee (M 4.25). Small differences surfaced among subcultures (Figure 17).

Classroom observations to be made by a professional of Hispanic background were almost always required in 54% of the responding Local Education Agencies, although this item received the lowest level of frequency (M 3.46) of the four decision-making items. By subculture, Hispanic school districts of predominately Cuban descent had the highest frequency of a classroom observation (Figure 18), while those Local Education Agencies of predominately Mexican-American students revealed the highest level of frequency for requiring an Hispanic to be included on all three decision-making committees (Figures 15, 16, and 17).

While research questions one, two and three sought information for the purpose of describing distributions on selected variables, research question number four sought data for the purpose of determining what relationships, if any, existed among two or more variables. In order

to summarize these relationships, contingency analysis was performed, with the statistic chi-square to determine dependence, and the statistic gamma (G), appropriate for measuring both strength and direction of association between ordinal levels of measures, were applied.

Research Question Number Four

4. What is the relationship between the frequency of use of selected nondiscriminatory assessment procedures and the representation of Hispanic students in special education, and into programs for the educable mentally retarded, learning disabled or gifted/talented?

A. Is there a significant relationship between assessment and subcultures?

B. Is there a significant relationship between the size of Local Education Agencies and representation in certain education programs?

In order to examine relationships among variables, over 200 cross-tabulations were computed. For discussion, these findings are categorized first, under special education, then followed by findings related to representation in programs for the educable mentally retarded, specifically learning disabled and gifted/talented.

Special Education

Of the 92 Local Education Agencies who completed the two items seeking special education enrollment data, 24% were classified as

overrepresented, 63% as proportionately represented and 13% as underrepresented. Crosstabulating representation categories in special education with each of the 16 variables in the assessment process, one emerged as statistically significant > .06 (Table 10); that of teaching the Hispanic student test-taking skills. The distribution (below) revealed that of the 22 Local Education Agencies who overrepresented Hispanic students in special education, 69% seldom or almost never provided test-taking activities, while of those 57 school districts who were classified as proportionately representing Hispanic students in special education, 52% seldom or almost never provided test-taking activities for the Hispanic student.

Teaching Test-taking Skills by Hispanic Representation in Special Education

Frequency of use	Over	Proportionate	Under	Total
Almost Always or Frequently	9% (2)	23% (13)	16% (2)	(17)
Occasionally	32% (7)	25% (14)	42% (5)	(26)
Seldom or Almost Never	69% (13)	52% (30)	42% (5)	(48)
TOTAL	(22)	(57)	(12)	(91)

Because pluralistic assessment has often been linked with nondiscriminatory assessment procedures required for minority students, (even though not significant > .05) findings revealed that of those school districts who were classified as overrepresenting Hispanic students, 46% seldom to almost never employed pluralistic assessment (see below).

Pluralistic Assessment by Hispanic Representation in Special Education

Frequency of Use	Over	Proportionate	Under	Total
Almost Always or Frequently	36% (8)	43% (25)	58% (7)	(40)
Occasionally	18% (4)	26% (15)	25% (3)	(22)
Seldom or Almost Never	46% (10)	31% (18)	17% (2)	(30)
TOTAL	(22)	(58)	(12)	(92)

(G) = .233, $p > .12$

While not significant beyond > .05 the inclusion of an Hispanic professional on the referral committee revealed a somewhat higher frequency of use for those Local Education Agencies whose Hispanic students were proportionately represented in Special Education (Table 11). Distribution indicated that of the 57 LEAs classified as proportionate, 67% almost always included an Hispanic on the referral committee, while of those school districts classified as overrepresenting, 41% almost always made this inclusion.

Specific Learning Disabilities (SLD)

Description of relationship between each variable in the assessment process and the enrollment of Hispanics in programs for the specifically learning disabled was also performed by contingency analysis. Of the 89 respondents who completed these two items on enrollment data in SLD programs, 21% were classified as overrepresenting Hispanic students, 61% as proportionate, while 18% were indexed as underenrolling Hispanic students in programs for SLD. Crossbreak analysis revealed that the variable

criterion-referenced measures was statistically significant > .03 when related to enrollment in SLD programs (Table 12).

Distribution showed that of the 60 Local Education Agencies who almost always or frequently used criterion-referenced measures, two-thirds were classified as proportionately representing Hispanic students in SLD programs. Reading across the table (see below) of those 11 school districts who seldom or almost never used criterion-referenced tests, classifications of over, proportionate or under were nearly equal, while of the 54 Local Education Agencies who proportionately represented Hispanics in SLD programs, 74% almost always or frequently used criterion-referenced measures.

Criterion-referenced Measures by Representation of Hispanic Students in SLD Programs

Frequency of Use	Over	Proportionate	Under	Total
Almost Always or Frequently	53% (10)	74% (40)	65% (10)	(60)
Occasionally	31% (6)	18% (10)	12% (2)	(18)
Seldom or Almost Never	16% (3)	8% (4)	26% (4)	(11)
TOTAL	(19)	(54)	(16)	(89)

A second assessment variable significant > .06 was that of using an intepreter in the assessment process. Distribution examination revealed that of those 16 school districts who were classified as under-represented, 24% seldom or never used an intepreter, and of the 33 respondents who almost always used an interpreter, 64% were classified as proportionately enrolling Hispanic students into programs for the special learning disabled.

The statistic Gamma was significant > .09 when crosstabulated with the inclusion of an Hispanic on the IEP committee and representation of Hispanic students into SLD programs with the majority of school districts, regardless of classification, likely to include an Hispanic on the three decision-making committees.

Pluralistic assessment while not significant > .05 revealed that of the 54 proportionately represented school districts, 47% almost always or frequently used pluralistic assessments, while of the 38 school districts who seldom to almost never used pluralistic assessment, nine were overrepresented, 16 proportionate and 3 underrepresented Hispanic students in programs for the specifically learning disabled (see below):

Pluralistic Assessment by Hispanic Representation in SLD Programs

Frequency of Use	Over	Proportionate	Under	Total
Almost Always or Frequently	32% (6)	47% (25)	47% (7)	(38)
Occasionally	21% (4)	24% (13)	33% (5)	(22)
Seldom or Almost Never	47% (9)	19% (16)	20% (3)	(38)
TOTAL	(19)	(54)	(15)	(88)

G = .23, p > .10

Educable Mentally Retarded (EMR)

Of the total respondents who completed the two items requesting information on enrollment data for EMR students, 54% of the Local Education Agencies were classified as proportionate, 13% under and 33% overrepresenting Hispanic students in programs for the EMR. Contingency

analysis between classification and selected assessment variables, revealed that four variables were significant > .05 (Table 12): a) teaching the Hispanic test-taking skills ($p > .03$); b) requiring that a classroom observation be conducted by a professional of Hispanic background ($p > .04$); c) the inclusion of an Hispanic on the referral committee ($p > .04$); d) the inclusion of an Hispanic on the IEP committee ($p > .04$).

More than half of the respondents seldom or never provided activities to increase test-taking skills of the Hispanic students, while only 14 of the 84 respondents almost always or frequently did so (see below).

Teaching Test-taking Skills to Hispanic as Related to Hispanic Representation in EMR Programs

Frequency of Use	Over	Proportionate	Under	Total
Almost Always or Frequently	11% (3)	20% (9)	18% (2)	(14)
Occasionally	43% (12)	29% (13)	18% (2)	(27)
Seldom or Almost Never	46% (13)	51% (23)	64% (7)	(43)
TOTAL	(28)	(45)	(11)	(84)

Analysis of the distribution of responses when crosstabulated with the classroom observation ($p > .04$) revealed that of the 45 Local Education Agencies who were classified as proportionately representing Hispanic students into EMR programs, 56% almost always or frequently made a classroom observation.

The inclusion of an Hispanic on the referral ($p > .04$) and the IEP committees ($p > .04$), as crosstabulated with Hispanic representation in EMR programs, revealed that for those 50 Local Education Agencies who

almost always or frequently made this inclusion, 66% were categorized as proportionate, 24% as over and 10% as underrepresented.

The use of pluralistic assessment as associated with Hispanic representation in EMR programs was significant $p > .05$ (see below).

Pluralistic Assessment by Hispanic Representation in EMR

Frequency of Use	Under	Prcportionate	Over	Total
Almost always or	36% (4)	26% (12)	26% (7)	(23)
frequently	18% (2)	20% (9)	7% (2)	(13)
Occasionally	36% (4)	26% (12)	19% (5)	(21)
Seldom	9% (1)	16% (7)	14% (4)	(12)
Almost Never	(0)	12% (6)	33% (9)	(15)
TOTAL	(11)	(46)	(27)	(84)

Of the 15 Local Education Agencies who almost never used pluralistic assessments, nine were overrepresented. Gamma indicated that as frequency in use of pluralistic assessments decreased, there was a slight increase in the chances that Hispanic students would be overenrolled in programs for the educable mentally retarded.

While not significant > .05, the relationship of use of local ethnic norms to representation in EMR programs provided information as to how little local ethnic norms were used for scoring (see below).

Table 10

The Statistic Gamma (G) Used to Show Strength and Direction of Association Between the Frequency of Use of Selected Assessment Variables, and the Representation of Hispanic Students in Special Education or Specific Learning Disabilities

	Special Education		Specific Learning Disabilities	
Variable	(G)	p	(G)	p
Pluralistic Assessments	.23	.12	.23	.10
Criterion-referenced tests	-.06	.68	-.02	.90
Culture-fair tests	-.04	.79	.06	.70
Language Proficiency tests	.14	.67	-.02	.94
Improve test-taking skills	.22	.06	.10	.45
IQ tests in Spanish	.18	.22	.08	.56
Interpreter	-.07	.61	.08	.57
Match examiner to examinee	.06	.95	-.01	.89
Nonverbal subscales	-.08	.59	.008	.95
Local ethnic norms	.09	.56	.001	.99
Classroom observation	-.04	.76	-.03	.82
Referral Committee includes Hispanic	.15	.37	.19	.25
Multidisciplinary includes Hispanic	.14	.43	.20	.24
IEP Committee includes Hispanic	.21		.26	.09

Table 11

Chi-square Analysis of Independence Between Selected Assessment Variables, and the Representation of Hispanic Students in Special Education

Variable[a]	df	X^2	p
Pluralistic assessments	8	7.56	.47
Criterion-referenced tests	8	9.84	.27
Culture-fair tests	8	9.14	.33
Language Proficiency tests	8	6.28	.39
Improve test-taking skills	8	9.19	.32
IQ tests in Spanish	8	10.52	.23
Interpreter	8	8.42	.39
Match examiner to examinee	8	8.41	.39
Nonverbal subscales	8	8.47	.39
Local ethnic norms	8	4.84	.77
Classroom observation	8	6.61	.58
Referral Committee includes Hispanic	8	12.68	.12
Multidisciplinary includes Hispanic	8	10.45	.23
IEP Committee includes Hispanic	8	13.49	.09

Table 12

Chi-square Analysis of Association Between Selected Assessment Variables, and the Representation of Hispanic Students in SLD[a] or EMR[b] Programs

Variable	Specific Learning Disabled			Educable Mentally Retarded		
	df	x^2	p value	df	x^2	p value
Pluralistic assessments	8	8.47	0.39	8	9.52	0.29
Criterion-referenced tests	8	16.31	0.03*	8	3.50	0.89
Culture-fair tests	8	6.53	0.59	8	4.61	0.79
Language proficiency tests	8	6.64	0.16	8	5.78	0.44
Improve test skills	8	8.43	0.39	8	16.39	0.03*
IQ tests in Spanish	8	5.28	0.73	8	6.41	0.60
Interpreter	8	14.68	0.06	8	5.46	0.70
Match examiner to examinee	8	9.87	0.27	8	9.49	0.30
Nonverbal subscales	8	10.56	0.22	8	7.82	0.45
Local ethnic norms	8	3.93	0.86	8	8.74	0.36
Classroom observation	8	5.33	0.72	8	16.10	0.04*
Referral Committee includes Hispanic	8	9.24	0.32	8	15.97	0.04*
Multidisciplinary includes Hispanic	8	6.72	0.57	8	9.47	0.30
IEP Committee includes Hispanic	8	8.78	0.36	8	15.80	0.04*

[a]Specific Learning Disabilities [b]Educable Mentally Retarded *$p > .05$

Table 13

The Statistic Gamma (G) Used to Show Strength and Direction of Association Between the Frequency of Use of Selected Assessment Variables, and the Representation of Hispanic Students in Programs for Gifted/Talented, or Educable Mentally Retarded

	Gifted/Talented		EMR	
Variable	(G)	p	(G)	p
Pluralistic Assessments	-.04	.62	.28	.03*
Criterion-referenced tests	-.21	.10	.09	.90
Culture-fair tests	-.22	.08	-.02	.92
Language Proficiency tests	-.06	.74	.02	.92
Improve test-taking skills	.14	.24	-.06	.65
IQ tests in Spanish	-.30	.01**	.18	.22
Interpreter	-.38	.001**	-.01	.96
Match examiner to examinee	-.21	.09	.21	.13
Nonverbal subscales	-.27	.03*	.15	.28
Local ethnic norms	-.17	.17	.28	.05*
Classroom observation			.20	.17
Referral Committee includes Hispanic			.16	.34
Multidisciplinary includes Hispanic			.05	.79
IEP Committee includes Hispanic			.02	.88

*p > .05
**p > .01

Local Ethnic Norms as Related to Hispanic Representation in Programs for the Educable Mentally Retarded

Frequency of Use	Over	Proportionate	Under	Total
Almost Always or Frequently	11% (3)	20% (9)	18% (2)	(14)
Occasionally	3% (1)	13% (6)	18% (2)	(9)
Seldom or Almost Never	85% (24)	67% (30)	63% (7)	(61)
TOTAL	(38)	(45)	(11)	(82)

Gifted/Talented

The examination of relationships between the enrollment of the Hispanic students in programs for the gifted/talented and other selected variables must be reported and interpreted cautiously, being cognizant of numerous serious limitations. As previously discussed, only 49 of the 101 respondents completed the two items on the questionnaire. For data analysis, the remaining 50 who completed the questionnaire but omitted the gifted items, were coded as "Nulls" and may have influenced gamma. Secondly, of the 49 responding Local Education Agencies, 33 were classified as underrolling Hispanics into gifted/talented programs, while 15 were labeled as proportionate and three as over. These sparse data did not provide for a full cell development in each category, therefore, application of chi-square may not be valid. Finally, because only 3 of the 14 respondents representing Local Education Agencies of predominately Puerto Rican subcultures, completed items on gifted enrollment, comparison among subcultures was considered indefensible.

The total sum of gifted/talented students reported on 49 questionnaires was 18,234, of which 3,329 were Hispanic, for an 18% representation. As reported previously, the Hispanic representation in this study was 40%. Clearly, by these data, Hispanic students were grossly underenrolled in the programs for the gifted/talented. Crosstabulations were performed in order to determine if relationships could be found between enrollment classification and the use of selected accommodations in the assessment process for the Hispanic students.

Application of the statistic gamma revealed three variables to be significant > .05 (Table 13). These were, the use of intelligence tests in Spanish (> .01), the use of an interpreter during the actual testing situation (> .001), and the use of nonverbal subscales for assessment (> .03).

Use of an Interpreter by Hispanic Representation in Gifted/Talented Programs

Frequency of Use	Under	Proportionate	Over	Total
Almost Always or Frequently	32% (10)	40% (6)	33% (1)	(17)
Occasionally	26% (8)	33% (5)	33% (1)	(14)
Seldom or Almost Never	42% (13)	27% (4)	33% (1)	(18)
TOTAL	(31)	(15)	(3)	(49)

Examining the above distributions, note that of the 18 respondents who seldom or never used the interpreter, 13 were underrepresented, 4 proportionate and 1 overrepresented, while of the 31 Local Education Agencies who underrepresented Hispanics in Gifted programs, 42% seldom or never used an interpreter, 26 occasionally and 32% almost always or frequently did so.

Gamma was negative in most instances, revealing that there were more negative ties than positive, and that as the likelihood of underrepresentation increased, there was a slight increase in the possibility that the respondents seldom or never used an interpreter. The use of nonverbal subscales was significant $p > .03$ when associated with representation of Hispanic students in Gifted programs. The distribution reveals that again the larger number of respondents classified as underrepresented pulled gamma to the left.

Nonverbal Subscales as Associated with Representation of Hispanic Students in Gifted/Talented Programs

Frequency of Use	Under	Proportionate	Over	Total
Almost Always or Frequently	58% (18)	73% (11)	67% (2)	(31)
Occasionally	26% (8)	13% (2)	33% (1)	(11)
Seldom or Almost Never	16% (5)	14% (2)	(0)	(7)
TOTAL	(31)	(15)	(3)	(49)

Note that of the seven respondents who seldom to never used the nonverbal subscales, five underrepresented Hispanic students in gifted/talented programs.

Subculture as Related to Selected Assessment Variable

To determine whether relationships existed between subculture and the frequency of use of selected accommodations in the assessment process, crosstabulations were again performed. Only the use of intelligence tests in Spanish emerged as significant by application of chi-square (Table 14). Distribution of responses indicated that of the 71 Local Education Agencies of predominately Mexican descent, 46% almost always or frequently used intelligence tests in Spanish, while 44% almost never or seldom used this accommodation. Of the 14 Local Education Agencies of predominately Puerto Rican descent, 78% almost always or frequently used intelligence tests in Spanish, while 75% of those of Cuban dominance employed this accommodation.

Crossbreaks between the frequency of including an Hispanic on the IEP Committee as related to subcultures, was significant > .06. Examining distributions indicated that of the 72 Local Education Agencies of Mexican dominance, 80% almost always or frequently included Hispanics on IEP committees, while for the Cuban or Puerto Rican dominance each noted that 50% of the LEAs almost always or frequently included an Hispanic on the IEP committee.

Size of Local Education Agencies as Related to Representation

The survey also investigated the relationship between the size of enrollment of Local Education Agencies and the number of Hispanic students enrolled in certain educational programs. Data from respondents were categorized into small (zero - 3,999), medium (4,999 - 24,999) and large (25,000 and above) Local Education Agencies. Crosstabulations

revealed that large school districts tended to underrepresent Hispanic students in programs for the specifically learning disabled, small school districts slightly overrepresented, while a higher percentage of the medium sized school districts proportionately represented Hispanic students in SLD programs (see below).

Size of School as Related to Hispanic Representation in SLD

Size LEA	Over	Proportionate	Under	Total
Large	11% (2)	11% (6)	37% (6)	16% (14)
Medium	47% (9)	52% (28)	26% (4)	46% (41)
Small	42% (8)	37% (20)	37% (6)	38% (34)
TOTAL	(19)	(54)	(16)	(89)

$X^2 = 8.0$ ($df = 4$), $p > .09$

The size of school districts as crosstabulated with enrollment in programs for the educable mentally retarded was significant > .02. Larger schools tended to underrepresent Hispanic students in EMR programs, while medium school districts were more likely to proportionately represent Hispanics in these programs as shown below.

Size of School as Related to Representation in EMR

Size LEA	Over	Proportionate	Under	Total
Large	11% (3)	9% (4)	45% (5)	14% (12)
Medium	50% (14)	54% (25)	18% (2)	48% (41)
Small	39% (11)	37% (17)	36% (4)	38% (32)
TOTAL	(28)	(46)	(11)	(85)

$X^2 = 11.3$, $p > .02$

Table 14

Chi-square Analysis of Association Between Use of Selected Assessment Variables and Subcultures of Cuban-American Mexican-American or Puerto Rican Students

Variable	df	x^2	p value
Pluralistic assessments	4	7.47	0.11
Criterion-referenced tests	4	6.55	0.16
Culture-fair tests	4	6.12	0.19
Language proficiency tests	4	6.32	0.17
Improve test-taking skills	4	2.35	0.67
IQ tests in Spanish	4	9.43	0.05*
Interpreter	4	7.28	0.12
Match examiner to examinee	4	6.01	0.19
Nonverbal subscales	4	3.12	0.54
Local ethnic norms	4	2.55	0.63
Classroom observation	4	2.0	0.73
Referral Committee includes Hispanic	4	5.7	0.22
Multidisciplinary includes Hispanic	4	4.1	0.39
IEP Committee includes Hispanic	4	8.71	0.06

*$p > .05$

Although some disparaties emerged among enrollment representation in small, medium or large school districts, the pattern tended to be that large school districts underrepresent Hispanic students in all programs examined in the study, medium sized school districts were more likely to proportionately represent Hispanics in each area, while small school districts were more likely to underrepresent Hispanic students in gifted programs, while overrepresenting them in programs for the specifically learning disabled (Table 15). The statistic gamma (G) was negative in all instances of association (Table 16). These inversions indicated that there were slightly more negative agreements than positive.

Research Question Number Five

5. What is the level of participation of Hispanic parents in their child's special education program? Are there similarities/differences among the three subcultures?

Public Law 94:142 requires that parents participate in the development of their child's special education program. In particular, parents must first give informed consent prior to any formal assessment of their child's educational performance. Secondly, the schools must take steps to ensure that one or both parents are present at the Individualized Education Program (IEP) meeting. While parental participation at the IEP meeting is required, involvement at other decision-making points, such as attendance on the referral or multidisciplinary committees is at the discretion of the Local Education Agency.

Table 15

Chi-square Analysis of Independence Between Size of Local Education Agencies and Representation of Hispanics in Special Education, SLD[a], EMR[b], or Gifted/Talented

Programs[c]	df	X^2	p
Special Education	4	7.63	.10
SLD	4	7.92	.09
EMR	4	11.3	.02*
Gifted/Talented	4	7.22	.12

[a]Specific learning disabilities

[b]Educable mentally retarded

[c]Small = 0 - 3,999

Medium = 4,000 - 24,999

Large = 25,000 and above

*$p > .05$

Table 16

The Statistic Table Gamma (G) Used to Show Association Between Size[a] and Representation of Hispanic Students in Special Education, Specific Learning Disabilities, Educable Mentally Retarded or Gifted/Talented Programs

Programs	(G)	p
Special Education	-0.11	.57
Specific Learning Disabilities	-0.18	.30
Educable Mentally Retarded	-0.15	.38
Gifted/Talented	-0.09	.67

[a]Local Education Agencies: Small, Medium or Large

Questionnaire items 29 through 31 sought information regarding the level of parental participation in the special education process. The first item asked whether parents of suspected handicapped children were invited to attend the multidisciplinary committee: nominal level choices of "Yes," "No," or "Not Certain" were provided. Ninety-five percent of the respondents indicated that parents were invited to the meeting. The following item on the questionnaire asked with what frequency Hispanic parents attended the multidisciplinary committee meeting. Of the 100 respondents, 25% noted that Hispanic parents almost always attended, while 43% indicated that they frequently attended. Differences among subcultures revealed that school districts of Mexican-American predominance lead in frequency of parental attendance, followed by Cuban and then Puerto Rican parental participation (Appendices).

A final questionnaire item requested information on the frequency of attendance of Hispanic parents at the Individualized Education Program meeting. Of the 100 respondents, 64% indicated that Hispanic parents almost always or frequently attended. Data submitted by subculture revealed that again, the parents of Mexican dominance lead in frequency of attendance, with Cuban parents second and parents of Puerto Rican background indicating the least frequent parental attendance (Appendix F).

Research Question Number Six

6. What is the level of involvement of State and Local Agencies in the development of information for Hispanic parents written in Spanish?

The questionnaire included four items designed for the purpose of collecting information on state and local involvement in the provision of materials for Hispanic parents written in Spanish. The first item of this nature asked if the State Department of Education had developed a handbook on the rights and responsibilities of parents, written in Spanish? Sixty-eight percent of the respondents indicated Yes, with Local Education Agencies of predominately Puerto Rican descent leading in frequency (Appendix G). The second item requested information as to whether the State Department of Education had also developed due process guidelines written in Spanish. Sixty-five percent indicated Yes, with school districts of Puerto Rican dominance again indicating the highest level of frequency (86%), with Mexican and Cuban noting 63% and 50%, respectively.

Two items sought data on the level of involvement of the Local Education Agency in the development of information for parents written in Spanish. Seventy-nine percent of the respondents indicated their own school district had developed such information, while comparisons among subcultures revealed that Local Education Agencies of predominately Cuban descent were most likely to have developed their own information (100% indicated Yes), with Puerto Ricans (93%) and Mexican-Americans (63%) in order of frequency.

The seventh and final research question sought unstructured data from respondents.

Research Question Number Seven

7. What changes in the assessment process for the Hispanic student are suggested by Administrators of Special Education?

Two open-ended items were placed on the questionnaire for the purpose of collecting information of an unstructured nature from Administrators of Special Education regarding the assessment of Hispanic students. Of the 101 usable respondents, 49% wrote comments on the spaces provided, some as short as two words or as long as 150 words. One respondent sent a 150 page assessment document developed by the Local Education Agency in cooperation with the State Education Agency, while several others enclosed tests they had created. The comments made on the survey instrument were categorized under three issue areas, while all comments are provided verbatim in Appendix H. For purpose of discussion, open-ended comments represented three problem areas:

1. Assessment procedures implemented in the particular school district.

2. Comments regarding the unique characteristics of the Hispanic populations served.

3. The need for additional assessment instruments.

Several respondents noted that members of their professional staff were bilingual, therefore, an "interpreter" was not necessary. Tests were often administered in both Spanish or English, depending upon the circumstances, while other respondents reported the frequent use of the WISC in Spanish. Home visits by Spanish speaking school personnel were

often required, or liaison and outreach workers might accompany new children to and from school and made home visits if problems in communication occurred. One respondent indicated that there was some hesitancy on the part of Hispanics to assist in the assessment process of Hispanic students:

> It is interesting that the Latinos in our county are more American than Americans. Although they will work with the Spanish speaking students, they are anti-bilingual programs and anti ESOL. You need to consider that non-Latinos can be more sensitive to student needs than Latinos are at times.

Several respondents commented on the need to find more valid tests for the Hispanic student, noting a lack of valid intelligence or achievement tests for the Hispanic population, and the need for Spanish tests as related to the different dialects of subcultures.

Comments regarding the unique characteristics of the Hispanic population usually surfaced from the State of New Mexico. Some respondents cited the fact that their particular Hispanic populations spoke very little Spanish, having come from families who had lived in the area since the 16th century. Others wrote that their Hispanic students spoke neither Spanish nor English very well, and that some of their parents were unmotivated or uninterested in their childrens' education.

Summary

Chapter 4 presented the results of an investigation which sought information to describe phenomena regarding the representation of Hispanic students into special education as a whole, and more specifically into programs for the educable mentally retarded, gifted/talented

or specifically learning disabled. In an effort to determine what relationships, if any, existed between enrollment patterns and selected accommodations implemented in the assessment process, contingency analysis was performed, with the application of chi-square to determine independence, and the statistic gamma to assess strength and direction of association. A secondary, yet important part of the study was to seek information in such a manner so as to examine differences or similarities among the three subcultures of Cuban-American, Mexican-American, and Puerto Rican students.

While the application of descriptive or inferential statistics to these findings provided mathematical tools for determining how frequencies deviated from expected distributions, these findings must be interpreted by the investigator. Indeed, items of statistical significance may be without substantive meaning. The purpose of the fifth and final chapter is to examine findings in order to determine what tendencies may be operating and what patterns might be suggested.

Chapter 5

DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The purpose of the fifth and final chapter is to present a brief summary of the study, to discuss the findings, to formulate conclusions, and to suggest recommendations for further research.

Background and Purpose of the Study

The problem under study originally grew out of a court case heard in Holyoke, Massachusetts in which evidence was presented to reveal that Hispanic students were significantly underenrolled in special education as a whole. These findings were contrary to the overwhelming documentation collected throughout the previous five decades, in which Hispanic students were shown to be overrepresented in special education in general, and in programs for the educable mentally retarded in particular. The investigator, in an effort to seek further information on representation issues, uncovered another underrepresentation case, in which the Office for Civil Rights filed a complaint against the Philadelphia Public Schools, alleging them to be underenrolling Hispanic students into special education. At about the same time, another report with a different position emerged, in which the Office for Civil Rights concluded that Hispanic students were proportionately enrolled in special education. The question then of Hispanic enrollment patterns apparently had three different answers: over, under and proportionate representation.

While seeking to find explanations for these antithetical responses, the writer soon concluded that an examination of proportionate representation of Hispanic students in special education should not be separated from the nondiscriminatory assessment procedures provided for these Hispanic students. Essentially, the primary purpose of the study was to describe the enrollment patterns of Hispanic students into special education and gifted programs in an effort to determine what relationships, if any, existed between enrollment patterns and the frequency of use of selected nondiscriminatory assessment procedures. A secondary purpose, but important part of the study, was to collect information in such a manner so as to compare findings among the three Hispanic subcultures of Cuban-American, Mexican-American, and Puerto Rican students.

As with all studies, there were numerous limitations (discussed in detail in Chapter 1). Briefly, these included: 1) knowledge of the respondent in completion of the questionnaire; 2) lack of standardization and accuracy of the formula used for assigning enrollment classification to each Local Education Agency; 3) imprecision of the dominant criterion used to distinguish the three Hispanic subcultures; and 4) the relatively low response rate secured from those Local Education Agencies of Puerto Rican dominance.

Comparison with Other Studies and Court Cases

To determine how the findings of the present study related to earlier findings of similar studies, three national reports and two court cases were reviewed and results compared.

In 1978 the Office for Civil Rights contracted with Killalea Associates to conduct a comprehensive survey to collect enrollment data on elementary and secondary public school students in educational programs. In the final report, they concluded that Hispanic students were enrolled in special education proportionate to their percent of enrollment in the nation's public schools. The conclusions of the present study, although arrived at in a somewhat different manner than the Civil Rights Survey, were essentially in agreement, for it was found that the majority of Local Education Agencies were classified as proportionately enrolling Hispanic students into special education and programs for the learning disabled and the educable mentally retarded. The latter finding was contrary to the conclusions of many other researchers who had found the Hispanic student to be overenrolled in programs for the mentally retarded (Mercer, 1972; 1979; Bryden, 1974; Oakland & Laosa, 1977; Bernal 1977; Morris, 1977; Cohen, 1975; the Civil Rights Memorandum, 1970). Testimony from selected court cases provided further documentation to support this general assumption (Larry P. v. Wilson Riles, 1972; Diana v. Board of Education, 1970; and Arreola v. State Board of Education, 1968).

The findings of the present study were also in agreement with the Civil Rights Report (1978), the GAO Report (1981), and the Brown Report (1980), in that Hispanic students were grossly underenrolled in programs for the gifted or talented.

A Government Accounting Report (GAO Report, 1981) was prepared at the request of subcommittee chairman, Austin J. Murphy (D-PA), for the purpose of collecting information on whether disparaties still existed

in "who gets special education." The report was essentially a compilation of information taken from some 15 studies and two massive data sources, one being the aforementioned Civil Rights Survey. The GAO Report concluded that in 1980, 8.16% of the nation's total school age population were receiving special education and related services. This figure, although somewhat lower than the percent derived from the results of the present study, was not too dissimilar (10.4%). The GAO Report also revealed that of the total number of Hispanic students receiving special education, 44% were classified as specifically learning disabled, and 16% as educable mentally retarded. The learning disabled percent was precisely the same figure as revealed in the present study, however, the percentage of students served in educable mentally retarded was 8.6%, nearly half that reported in the GAO document.

In an account on nondiscriminatory assessment criteria The Inspector General's Report (1979) concluded from the results of a survey conducted in six states, that nearly half of the respondents did not adapt testing methods to accommodate cultural or regional differences (Education of the Handicapped Newsletter, August 1, 1979). Contrary to these conclusions, in the present study 95% of the Administrators of Special Education revealed that they frequently made adaptations in the assessment procedures for the Hispanic student. Indeed, from working with the raw data, in particular the open-ended comments made by many respondents, the investigator sensed a genuine concern and rather high level of knowledge about adaptations appropriate to use in the evaluation of the Hispanic student.

Because two court cases involving underrepresentation of Hispanic students into special education acted as catalysts for the present study and were also school districts included in the sample population, it seemed appropriate to compare the results of the present investigation on enrollment data with the findings reported to the public-at-large from these two cases. This type of comparison also provided a modest way to check on the accuracy of data submitted when compared to published data for the same school districts.

In the case of Massachusetts v. Holyoke Public Schools (1979), the hearing officer ruled that the school district (Holyoke) was underrepresenting Hispanic students into special education and into the least restrictive programs (Education for the Handicapped Law Report, June 22, 1979). These findings were upheld in the present study. Similarly, the Office for Civil Rights alleged that Philadelphia Public Schools were underenrolling Hispanic students into special education programs (Education of the Handicapped Newsletter, February 27, 1980). Again, the results of the present study were in agreement with the published findings.

While there is a growing body of survey data regarding the numbers of minority students enrolled in special education, the present study appeared to be somewhat exploratory with respect to the examination of differences among Hispanic subcultures in the area of special education. No studies were uncovered from which to compare the findings of the present study in regard to subculture differences.

Hispanic Enrollment Patterns

One of the purposes of the study was to collect information in order to describe enrollment patterns of the Hispanic student into special education or gifted/talented programs. Section B of the mailed questionnaire elicited enrollment data from the Administrators of Special Education for each of the selected programs. The 101 respondents represented a total school enrollment of 1,567,006, including 630,425 Hispanic students. Of this number approximately 400,000 were classified of Mexican descent, 93,000 of Cuban background, and 115,000 of Puerto Rican origin.

The formula developed for the study was applied to these submitted data in order to determine whether a school district would be categorized as "under," "proportionate" or "over" representing Hispanic students in special education or gifted programs. No evaluative judgments, or cause/effect relationships were suggested.

Findings revealed that the majority of Local Education Agencies (62%) were classified as proportionately representing Hispanic students in special education, while 14% were categorized as under representing and 24% as overenrolling. In programs for the specifically learning disabled, findings revealed that again, the majority of Local Education Agencies were classified as proportionate (61%), while 20% were overenrolling Hispanic students in programs for the learning disabled. In programs for the educable mentally retarded, it was found that the majority of school districts (61%) were classified as proportionate, while nearly a third were classified as overrepresenting Hispanic students in programs for the educable mentally retarded. Of the 49 respondents who completed the

two enrollment items on gifted programs, the majority (63%) underenrolled the Hispanic student.

Enrollment by Subcultures

Past surveys on enrollment information on minority language children have usually collected data under the general term of "Hispanic," thus ruling out any attempt to examine differences among the Hispanic subcultures. In contrast, the present investigation sought information in such a manner, so as to make generalizations regarding enrollment patterns among the three subcultures of Cuban-American, Mexican-American, and Puerto Rican students.

Findings revealed that those Local Education Agencies whose Hispanic population was predominately of Puerto Rican descent, enrolled proportionately the fewest Hispanic students into special education as a whole, and also in programs for the learning disabled (non-Hispanic 11.5% as compared to Hispanic of 7%).

Two possible explanations are proposed. In this study, contrary to other surveys of a similar nature, each school district was assigned a representation label, based on the data submitted on the questionnaire. This classification was derived from a formula which set out to compare the ratio of non-Hispanic students to Hispanic students, with no interest as to the ethnicity or racial composition of the term non-Hispanic. Therefore, in the Puerto Rican comparison, populations generally emerged primarily from the industrial cities of the Northeast, which included fairly large Black populations. This fact may have increased the possibility that the non-Hispanic ratio would be higher representation rate

in special education than the Hispanic (Brown, 1980; GAO Report, 1981). A second explanation resides in the low response rate of the Puerto Rican populations, thus making a valid comparison among the subcultures rather risky.

Local Education Agencies whose Hispanic population was predominately of Mexican origin revealed minimal differences when found when comparing non-Hispanic to Hispanic enrollments in special education (9.7% and 10.4%). Compared with the differences in the previously discussed Puerto Rican populations of 11.5% compared to 7%, there were considerable differences.

Two explanations are suggested: it was found through crosstabulations that the size of the Local Education Agencies was related to proportionate representation; that is, that small to medium school districts were slightly more likely to be classified as proportionately represented in special education. The great majority of Local Education Agencies whose populations were of Mexican predominance were classified as small or medium in size. A second explanation rests in the fact that high density of the Hispanic population tended to be related to proportionate representation. School districts with Mexican predominance were often more densely Hispanic than either those of Puerto Rican or Cuban dominance.

When non-Hispanic enrollment patterns were compared to Hispanic enrollment patterns whose populations were predominately of Cuban descent, they were found to underenroll Hispanic students into special education, while proportionately enrolling in learning disabilities, and slightly underenrolling in programs for the educable mentally retarded. Again,

explanations rested in the size of the school districts, for one school district enrolled 87,000 Hispanic students, most of whom were of Cuban descent.

Essentially, school districts of Puerto Rican dominance or Cuban origin enrolled relatively fewer students in special education and learning disabilities programs than those of Mexican origin. The lowest percent of Hispanic students represented in programs for the educable mentally retarded was found in the Cuban populations (.6%), with the highest in the Puerto Rican populations (1%). In general, findings revealed those Local Education Agencies of Cuban or Puerto Rican dominance to be more similar than those of Mexican origin.

Protection in Evaluation Procedures for the Hispanic Student

The findings of the study reaffirmed the complexity of the issue of nondiscriminatory assessment or that of settling upon certain accommodations or alternatives which would ensure assessment, and subsequent appropriate enrollment of Hispanic students into special education and gifted/talented programs. The investigator sought to determine what trends and patterns might be suggested from the findings, and in no way suggest that any finding was an absolute. In the main, the evidence was too conflicting to support strongly any specific accommodation which related directly to particular enrollment patterns of the Hispanic student.

Public Law 94:142 requires that "Each state shall establish procedures to assure that testing and evaluation materials and procedures utilized for purposes of evaluation and placement of handicapped children will be selected and administered so as not to be racially or culturally

discriminatory" (612, 5. [c]). Nearly 50 years prior to the passage of Senate #6 into Public Law 94:142, suggestions were being proposed as to how to minimize bias in the assessment of the Spanish speaking child. In particular, the administration of the intelligence test in Spanish was found to produce dramatically increased test scores for these students (Sanchez, 1934). During the past five decades, numerous other suggestions to ensure nondiscriminatory assessment have arisen. For the present study, ten of these adaptations were selected and included on Section A of the mailed questionnaire (Appendix D). Respondents were asked to indicate the frequency of use of each accommodation. Also requested, was information on the composition of decision-making committees for determination of eligibility of Hispanic handicapped children. The following discussion of the findings is organized around each accommodation beginning with the most frequently implemented procedure, and concluding with the least frequently selected accommodation.

Language dominance and language proficiency assessment.

> Language dominance and English language proficiency information should be a standard part of the referral packet for all students from non-English language backgrounds.

Findings provided quantifiable data that the great majority support the above assumption, for the 101 respondents, 91% indicated that they almost always or frequently required that the language proficiency and language dominance of the Hispanic student be established. Position papers and research findings of other investigators who have noted that the most important and first step in the assessment of the Hispanic students is language assessment would find these results encouraging.[1]

[1] A resource manual for the development and evaluation of special programs for exceptional students, volume III-B: Evaluating the non-English speaking handicapped. State Department of Education, Florida, developed in cooperation with Dade County Public Schools, 1979.

Crosstabulation of the frequency of use of the language dominance variable with enrollment patterns of Hispanic students did not reveal statistical significance > .05. The important and singular conclusion to be drawn was in the high frequency of use of this measure.

Nonverbal subscales from more comprehensive measures. A great deal of agreement among Administrators of Special Education also occurred when asked the frequency of using nonverbal subscales from more comprehensive tests. Nondiscriminatory assessment researchers who have noted the importance of placing emphasis on the performance test data rather than on verbal test information with students of limited English speaking ability, would also find these results optimistic. Differences among the three Hispanic subcultures were minimal, however, those Local Education Agencies of Puerto Rican dominance lead in frequency of use, followed by those of Cuban and then Mexican origin.

When the use of nonverbal subscales was crosstabulated with enrollment patterns, it was found to be significant (Gamma, $p > .03$) with Hispanic gifted enrollment. This significance must be interpreted very cautiously, being cognizant of the serious limitations previously discussed. Keeping such limitations in mind, one might argue that based on the distribution of frequencies of those 15 Local Education Agencies who were classified as proportionately representing Hispanic students in Gifted programs, 11 very frequently used nonverbal tests. It was also found that of those 31 Local Education Agencies who underrepresented Hispanic students in gifted programs, 18 used nonverbal tests with high frequency.

Culture-fair tests. Culture-fair tests were initially conceived as an important approach to the elimination of elements of cultural bias in the instruments, elements such as time constraints or vocabulary framework. As yet, however, no culture-fair test has been developed which effectively minimized culturally binding factors. While the respondents in the present study indicated a high frequency of use of culture-fair tests, skepticism was revealed by the handwritten comments in the margins of some questionnaires, echoing the skepticism found throughout the literature review on nondiscriminatory assessment.

Subculture differences were more widespread than in some of the other accommodation usage with the Local Education Agencies of Puerto Rican descent employing the culture-fair tests most frequently, followed by those of Mexican and then Cuban predominance. The important conclusion to be drawn was that Administrators of Special Education frequently make use of culture-fair tests, even though a questionable attitude was apparent among several respondents.

Matching examiner to examinee. One of the few researchers who recently set out to investigate the importance of matching the examiner to the examinee in the actual testing situation with the Hispanic student, was Mishra (1980). Her findings revealed that only on the verbal portion of the intelligence test did the Mexican-American student score higher when the test was administered by an Hispanic examiner. Other studies of a similar nature have usually been conducted with the Black populations, and have provided equivocal results. This pattern was congruent with the findings of the present study, as the respondents provided empirical evidence of the reluctance to require that the

examiner be matched in language or ethnicity to the examinee. The differences of opinions were reflected in the results, for half the respondents indicated a high frequency of use, and the other half indicated they almost never made this requirement. Local Education Agencies of predominately Mexican descent were least likely to match the examiner to examinee, with the Puerto Rican populations employing this administrative accommodation most frequently.

Interpreter during the actual testing situation. The most widespread difference among the three subcultures was found in the frequency of use of an interpreter in the actual testing situation. Local Education Agencies of Cuban predominance noted a very low frequency, with those of Puerto Rican dominance the highest. A plausible explanation rests in the knowledge that Cuban-Americans often have access to a "Bilingual diagnostician" who may not have been classified as an "interpreter," but may function somewhat as one, while school populations of Puerto Rican background employed Spanish-speaking liaison or Bilingual outreach workers, and may have considered this professional an "interpreter" in responding to the questionnaire.

Classroom observation by Hispanic professional. Because Public Law 94:142 requires that a classroom observation be conducted of all students suspected of having a specific learning disability, the questionnaire sought information on the frequency that a classroom observation was made by a professional of Hispanic background. More than half of the respondents noted that they require an observation be conducted by an Hispanic. Crosstabulating classroom observations with enrollment patterns, it was found to be significant ($p > .04$) with enrollment in

educable mentally retarded programs. A tentative interpretation of these findings was that those Local Education Agencies who indicated a high frequency of requiring a classroom observation were slightly more likely to be classified as proportionately representing Hispanic students in educable mentally retarded programs. Readers must recall the limitation already discussed in the collection of data on the enrollment of educable mentally retarded students and interpret these conclusions cautiously.

Criterion-referenced measures. The use of criterion-referenced measures was considered by Mowder (1980) to be one of the most important elements in the assurance of nondiscriminatory assessment for the student of limited English speaking ability. The frequency of use of criterion-referenced tests was fairly high from the majority of respondents, and when crosstabulated with enrollment patterns of the Hispanic student in programs for the learning disabled, it was significant ($p > .03$) ($X^2 = 16.32$, df 8). One might speculate that the frequency of use of criterion-referenced tests slightly increases the possibility that Hispanic students would be proportionately enrolled in programs for the learning disabled. Differences among the three subcultures indicated that those Local Education Agencies of predominately Puerto Rican dominance used the criterion-referenced tests least frequently, with those of Cuban dominance leading in frequency of use.

Pluralistic assessments. While pluralistic assessment has been advocated by professionals for several years for the purpose of securing more valid assessment data from children of culturally different backgrounds (Mercer, 1975, 1977; Mowder, 1980; Ysseldyke, 1980) these

researchers would be discouraged by the findings. Respondents did not support a high frequency of use, however, when the variable of pluralistic assessment was crosstabulated with enrollment patterns in programs for the educable mentally retarded it was significant ($p > .03$) (Gamma = .28). Tentative interpretation based on the pattern of distribution revealed that for those Local Education Agencies who seldom used pluralistic assessment, about half were classified as overrepresenting Hispanic students in programs for the educable mentally retarded. Also, of those 36 Local Education Agencies who frequently used pluralistic assessments, 21 were categorized as proportionate. Recall the serious limitations of the enrollment data on the EMR population, e.g., that Texas uses the label of MR and that Massachusetts does not label categorically, but refers to Program Models of 502.2 or 3, the latter being defined as educable mentally retarded in the study, and may have influenced the conclusions.

An examination of the similarities and differences among the three subcultures revealed that those Local Education Agencies of predominately Puerto Rican descent used pluralistic assessment the most frequently, with those of Mexican background and Cuban predominance in order of frequency of use.

Intelligence tests in Spanish. Critics of the use of an intelligence test translated into Spanish (Roca, 1955; Drenth, 1972; Mercer, 1977; Chandler & Plakos, 1978) would find support from the findings of the present study, for it was revealed that of the 101 respondents, less than half used translation frequently, with differences in subcultures

revealing that those Local Education Agencies of Puerto Rican dominance, use translation more frequently than those of Cuban or Mexican dominance. Crosstabulation with enrollment patterns revealed significance ($p > .01$) when related to gifted programs. As before noted, interpretation must be made cautiously, because of the relatively poor response rate, compounded by the few school districts who proportionately represented Hispanic students in gifted programs.

Activities to improve test-taking skills of the Hispanic student. Findings of the study will be discouraging to those advocates who consider the provision of activities to increase the test-taking skills of the Hispanic student to be an important part of the nondiscriminatory assessment procedures, for relatively few respondents indicated that such activities were provided. Bernal (1971, 1977) recommended that such activities were important based on his dissertation research conducted with Mexican-American and Black students. Somewhat ironically, the findings of this study revealed that of the three subcultures, those of Mexican dominance were far more likely to provide test-taking activities for the Hispanic student than either those of Cuban or Puerto Rican dominance. A plausible explanation for the low frequency of use rests in the fact that many diagnosticians, psychologists or psychometrists would consider "teaching to the test" an invalidation of results.

Crosstabulating test-taking activities with the enrollment patterns of Hispanic students in educable mentally programs was found to be significant ($p > .03$) ($X^2 = 16.39$, df 8). One might argue because those respondents who always taught test-taking skills tended to be proportionately enrolled in classes for the educable mentally retarded, this activity should be increased.

Local ethnic norms for scoring. Results of the study revealed that the least frequently used administrative accommodation in the assessment process of the Hispanic student was the use of local ethnic norms for scoring the results of the tests. Throughout the literature review, one of the more controversial accommodations suggested to eliminate bias was in the computation of local, ethnic norms. Proponents such as Ulibarri (1978) and to some degree Oakland and Matsuzek (1977), as well as opponents such as Bernal (1977) and Jensen (1979) will find equal support from the results of the study, for half of the respondents indicated they seldom used local norms and half indicated they frequently used them, with differences among subcultures minimal.

Crossbreak analysis of use of local ethnic norms with enrollment patterns of Hispanic students into educable mentally retarded programs was found to be significant ($p > .05$) (Gamma = .28). This finding suggests that the low frequency of use of local, ethnic norms slightly increased chances of over or proportionately enrolling Hispanic students in programs for the educable mentally retarded.

Decision-making Committees

Some researchers have suggested that there may be a significant relationship between the elimination of bias in the assessment process and the inclusion of a matched minority on decision-making committees (Tucker, 1976; Ysseldyke & Regan, 1980; Duffy, Saliva, Tucker & Ysseldyke, 1981). For purposes of examining this hypothesis, the questionnaire included items to collect information on the frequency of inclusion of an Hispanic professional on each of the following decision-making

committees: 1) referral; 2) multidisciplinary and; 3) the Individual Education Program Committee. The results should be encouraging to the body of writers who proposed this inclusion, for the majority of respondents, regardless of Hispanic subculture served, geography, or size of Local Education Agency, frequently included a professional of Hispanic background on each of the three committees.

Crosstabulating these variables of inclusion with enrollment patterns, it was found to be significant ($p > .04$) when related to enrollment of Hispanic students into educable mentally retarded programs. Interpretation of this significance might be that those Local Education Agencies who most frequently included an Hispanic on committees were more likely to be classified as proportionately representing their students into educable mentally retarded programs, although the evidence was far from clear.

Those Local Education Agencies whose Hispanic populations were predominately of Mexican origin revealed the highest level of frequency for requiring an Hispanic to be included on all committees. The higher density of Hispanic students included in these populations may also include a higher density of Hispanic professionals.

The highlight for the investigator was simply that most Administrators of Special Education required that a matched minority be included on the decision-making committees, a finding somewhat contrary to the opinions noted throughout the literature.

Parental Participation

Even though 95% of the Administrators of Special Education indicated that they always invited the parents of a potentially handicapped student

to the multidisciplinary committee meeting, few respondents noted that Hispanic parents almost always attended this meeting. Generally respondents noted that parents frequently or occasionally attended, with those parents of Mexican descent revealing considerably higher attendance levels than those of either of the other two subcultures, although differences were small.

Similarly, parents of Mexican origin were slightly more likely to frequently attend the Individualized Education Program meeting than those of Cuban or Puerto Rican descent.

A case might be made that because the Local Education Agencies of predominately Mexican origin tended to be smaller in size than those of Puerto Rican or Cuban communities, parental participation was thus higher, through easy access to the schools. One might also plausibly argue that the sense of "family" is higher with Mexican-American populations, although little data were available to support such a conclusion. The investigator hesitated to provide explanations based on differing of parental attitudes among subgroups without a more thorough knowledge of differences among the subcultures. Such suppositions might be tested by conducting further research at a future date.

Conclusions

A number of conclusions are suggested by the findings reported in Chapter 4. They are presented in the same sequential order of analysis.

1. The findings of the study, contrary to the conclusions drawn from numerous national surveys, research studies and court cases during

the late sixties and seventies, revealed the majority of Local Education Agencies to be proportionately enrolling Hispanic students in special education as a whole, and to a somewhat lesser extent, in programs for the specifically learning disabled and educable mentally retarded. On the other hand, the findings supported other research studies and national surveys regarding gifted enrollments, by revealing that Hispanic students were grossly underenrolled in programs for the gifted or talented.

Differences in enrollment patterns among the three subcultures of Cuban-Americans, Mexican-Americans, and Puerto Ricans were as follows:

a. Local Education Agencies whose Hispanic populations were predominately of Puerto Rican descent served relatively the lowest percent of Hispanic students in special education (7%), with those of Cuban dominance serving 8%, and those of Mexican dominance enrolling 10.4%.

b. Local Education Agencies whose Hispanic populations were predominately of Mexican descent served relatively the highest percent of Hispanic students into specifically learning disabled programs (5%), while those of Puerto Rican dominance served the fewest (2.3%), and those of Cuban dominance served 3.3% in programs for the learning disabled.

c. Enrollment patterns of Hispanic students into programs for the educable mentally retarded by subcultures, indicated that Local Education Agencies of predominately Puerto Rican Hispanic dominance served the highest (1%), followed by Mexican (.8%), and Cuban (.6%). These percentages are considerably lower, regardless of subcultures, than those of Hispanic students enrolled in classes for the learning disabled.

2. When the findings of the study were compared to the national incidence rates of 1980, they were found to be similar. For example, the GAO Report (1981) noted that 8.16% (excluding 89:313) of the nation's school-age population were receiving special education and related services, while of this total, 36% were classified as learning disabled. In the present study, findings revealed that 10.4% of the school population were enrolled in special education and of this percent, 34% were categorized as learning disabled. Results also indicated that 10.7% of the Hispanic population were receiving special education and related services, while of this percent, 44% were classified as learning disabled: the identical figure reported by the GAO document. These findings strongly suggested that the old label of educable mentally retarded has been and is being in part, supplemented by the newer category of specifically learning disabled.

3. Local Education Agencies classified as large, tended to underenroll Hispanic students into special education and into programs for the learning disabled and educable mentally retarded, while moderately sized school districts were more likely to proportionately represent Hispanic students in each of these programs. Nearly all of the school districts, regardless of size or Hispanic subculture dominance, underenrolled Hispanic students in gifted/talented programs.

4. In addition to representation patterns, the study also sought to describe the accommodations and alternatives made in the assessment of the Hispanic student to ensure nondiscriminatory testing. Contrary to the conclusions drawn by a recent Inspector General's Report (1979),

findings revealed that the majority of Administrators of Special Education frequently made adaptations in the assessment procedures to ensure protection in the evaluation of the Hispanic student. Some of these adaptions were as follows:

a. A very high percent of the respondents (91%) noted that they almost always or frequently required that the language proficiency and the language dominance test be given.

b. Closely following the frequency of the language dominance test was the use of nonverbal subscales, culture-fair tests, and interpreters. Least frequently used were local ethnic norms for scoring, and the provision of activities to improve the test-taking skills of the Hispanic student.

c. The majority of respondents frequently required that a classr om observation be made of the Hispanic student by a professional of matched minority.

d. Findings revealed that the decision-making committees frequently included a professional of Hispanic background; these committees were referral, multidisciplinary, and IEP, with the great majority of respondents (95%) indicating that they always invited the parents to these committee meetings.

5. Data were collected in a manner so as to make some gross generalizations as to differences or similarities among the three subcultures in the selection and frequency of adaptations made in the assessment of the Hispanic student. Highlights of these differences are as follows:

a. Criterion-referenced measures were used more frequently by those schools whose populations were predominately of Cuban background, although the differences among the remaining two subgroups were minimal. The use of pluralistic assessment was considerably less by those of Mexican dominance than by those of Puerto Rican or Cuban dominance.

b. Local school districts whose Hispanic students were predominately of Puerto Rican or Cuban origin were less likely to teach test-taking skills, while those of Mexican origin were by far the most likely to provide this activity, although this practice, in general, was not frequently used.

c. Respondents who served schools of predominately Puerto Rican dominance tended to employ the use of an interpreter and to administer intelligence tests in Spanish more frequently than those of Mexican dominance.

d. Nonverbal subscales were used most frequently by Local Education Agencies of Cuban dominance, followed by those of Mexican and then Puerto Rican, while findings revealed a low frequency of use of local ethnic norms for scoring, regardless of subculture.

e. Decision-making committees whose Hispanic subculture was of Mexican origin were the most likely to include an Hispanic professional, however, differences among the three subcultures were small.

6. Certain variables were found to be statistically significant ($p > .05$) when crosstabulated with enrollment patterns. These were as follows:

a. Criterion-referenced measures with enrollment in learning disability programs. While these findings are worth noting, the substantive significance was difficult to interpret. It might be argued that those Local Education Agencies who frequently used criterion-referenced tests as a part of the assessment process, were more likely to be classified as proportionately enrolling Hispanics in programs for the learning disabled.

b. Four accommodations were found to be significant when crosstabulated with enrollment patterns in programs for the educable mentally retarded.

These were classroom observation, pluralistic assessment, use of local ethnic norms, and the provision of test-taking activities to increase skills.

It might be plausible to argue that by making a classroom observation, chances were slightly better that the Hispanic student would be in a school division classified as proportionately enrolling students into EMR programs. The second variable, that of using pluralistic assessment information was not independent from EMR enrollment. Tentative interpretation might be that of those schools who very seldom used pluralistic assessment, more than half were found to be overenrolling Hispanic students in programs for the educable mentally retarded.

The remaining two variables found to be significant were the use of local ethnic norms and the provision of test-taking activities to increase

test-taking skills. Although the frequency of use of each of these was low, of those respondents who always provided test-taking activities, two-thirds were classified as proportionate. The use of local ethnic norms for scoring provided evidence too conflicting to make a suggested interpretation.

c. The inclusion of a professional of Hispanic background on the decision-making committees was found to be significant with enrollment patterns in programs for the educable mentally retarded. One might speculate that this inclusion increased the prediction that those school districts would be classified as either proportionately or underrepresented in programs for the educable mentally retarded.

d. Two variables, that of administration of the IQ test in Spanish, and the use of nonverbal subscales were significant when crosstabulated with Hispanic gifted enrollments. The serious limitation related to the low response rate for gifted enrollment made interpretation of this significance inappropriate. The only clear and easily made conclusion from this study regarding gifted enrollment was that Hispanic students were underenrolled in nearly every reporting school district.

7. Parental participation in their child's special education program was only moderate across subcultures, with those parents of Mexican origin being the most likely to frequently attend the Individualized Education Program Committee meeting.

8. State Departments of Education were found to be involved in the development of information for Hispanic parents in particular documents

on due process and parental rights and responsibilities, written in Spanish.

9. Nearly half of the respondents took time to write comments on the survey instrument, giving the investigator a sense of their genuine concern regarding the appropriate assessment of the Hispanic student. The most often cited need was for tests to be developed and validated on (normed) Hispanic populations. A second need was for more parental cooperation. Most of the comments related to efforts the respondents were making to ensure evaluation protection for the minority student.

Recommendations for Further Research

Crosscultural research should be conducted, further defining Hispanic subgroups as distinct "cultures" thereby employing a more precise definition of subculture than the present study. This approach may lead to more accurate findings and conclusions regarding the often reported, but seldom tested conclusion that Hispanic subgroups are very distinct. This investigator and perhaps others may find it valuable to conduct ethnography research in order to more precisely describe and analyze the cultural differences, beliefs and behaviors of each subgroup.

Research should be conducted to examine the strong possibility that Hispanic students are increasingly being classified as specifically learning disabled, and decreasingly categorized as educable mentally retarded, and the implications of such a movement.

With increasingly limited human and financial resources available to the public schools, longitudinal studies might prove fruitful in seeking to determine what impact such limitations will have on the

enrollment numbers of Hispanic students in special education and gifted programs. Similar research should also examine how such fiscal restraints affect the accommodations and alternatives made in the assessment process for Hispanic students.

If Public Law 94:142 is repealed and/or regulations rescinded, future studies might be designed to estimate the impact of such events, firstly on the efforts made to eliminate bias in the assessment process and secondly, on any changes in enrollment patterns of Hispanic students in special education and gifted programs.

A concentrated effort should be made to develop and validate assessment instruments appropriate for evaluating the abilities and achievement levels of Hispanic students.

Research efforts should be focused on determining what influence or changes in behaviors that inservice activities might have on professionals who are responsible for evaluating Hispanic students.

Institutions of higher education might give consideration to the inclusion of programs specifically designed to train professionals, including teachers, in ways to diminish bias in the assessment process for the Hispanic student.

Studies of an experimental nature might seek to test hypotheses to determine whether some of the statistically significant findings of the present study would also hold up under a different research design. In particular, if Hispanic students were "taught" how to take tests, would their increased skills be exhibited in the test scores?

The use of criterion-referenced measures should be explored for the purpose of determining if a direct relationship continues to exist

between enrollment patterns of Hispanic students enrolled in specific learning disability programs and the frequent use of these measures.

Future studies might concentrate solely in the area of underserved Hispanic populations, trying to determine if such cases are more prevalent than previously thought; and because the findings of the present study indicated the Puerto Rican populations to be considerably underenrolled as compared to those of the Mexican-American populations, these results should be further explored in an effort to seek explanations.

The findings of the study, contrary to the opinions of several respected educators, revealed that decision-making committees of Hispanic handicapped students frequently included a professional of matched minority. Because this study was descriptive in nature, and fell prey to the inherent inaccuracies of nearly all survey research, perhaps on-site studies should be designed to test these findings and more importantly to determine whether any relationship exists between enrollment numbers and composition of decision-making committees.

Clearly, from the conclusions of this study and many others, Hispanic students are seriously underenrolled in programs for the gifted or talented. A concentrated effort to develop more sensitive identification procedures must be made in order to ensure equal access for all students, regardless of race or cultural background.

The formula designed in the present study for the purpose of determining whether a Local Education Agency be classified as "over," "under" or "proportionate" has not been tested. Indeed there is not a standard

formula for determining a representation classification, and thus the terms are ambiguous. Efforts should be made to standardize a formula, even though inherent in the concept are many ambiguities. For example, there may be times when "under," or "over" representation in certain education programs is appropriate to the unique characteristics of the populations served.

And finally, models, paradigms, and taxonomies provide conceptual frameworks for the professional to systematically organize diverse types of information. Models are useful to suggest relationships, and to provide an efficient method of storing large amounts of data. From the findings of the present study, the investigator would caution researchers that models designed to ensure protection in the evaluation procedures for the minority language student, must be carefully developed being fully aware of the complexity of the issue.

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APPENDIXES

APPENDIX A

SAMPLE LETTER MAILED TO STATE EDUCATION AGENCIES

SAMPLE

Virginia Department of Education
Division of Special Education and
Compensatory Services
900 Fairfax Street
Radford, VA 24141
December 5, 1980

Office of Education of Children
with Handicapping Conditions
State Department of Education
55 Elk Street
Albany, NY 12234

Dear

I am an Assistant Supervisor in the Division of Special Education and Compensatory Services, Virginia Department of Education. Last year the Department granted me a sabbatical for a year's study at The Ohio State University. I am in the process of gathering information regarding the proportion of Hispanic students receiving special education,gifted/talented services. Most of the recent data collected on this topic treated "Hispanics" as one group. I think this approach hides the important differences among the three major subgroups of Mexican-Americans, Puerto-Ricans, and Cuban-Americans, and may present a misleading picture of the representation of such students into special education and gifted programs.

I would like to send a questionnaire to selected Administrators of Special Education in areas of the country where the majority of Hispanic students are of one of the three subgroups. Information from New York would assist me in gathering data on the Puerto Rican population. I have no interest in maintaining the identity of the states or districts involved, indeed all questionnaires would be coded so as to indicate only whether students are of Cuban, Mexican, or Puerto Rican descent. All information would be strictly confidential and no persons or states would be identified.

The only assistance I seek from your Office is a directory of persons responsible for Special Education and Gifted Programs, or perhaps a contact person on your staff to whom I might direct my inquiry. If you have any questions regarding my position in our Department, please contact Dr. William Helton or James T. Micklem, Sr.

I greatly appreciate any assistance you might give me in this endeavor. If you wish further information on my study, please contact me at (703) 951-7772(home), or (703)731-5217(office).

Sincerely yours,

Lori Bell-Mick,

APPENDIX B

VERBATIM COMMENTS FROM FIELD-REVIEWERS TO QUESTIONNAIRE

APPENDIX B

Comments from the three groups of field-reviewers.

Group I

Trilingual psychologist and researcher in the area of nonbiased testing of the Puerto Rican student: (Consultant throughout the entire development of the instrument.)

This was easy to read and understand; neat and to the point--not overwhelming or too complicated. You've done a great job--I wish you mucha suerte!

Re: Language Spoken: I don't know if this plays an important part in your research, but, the only thing missing here is information on the language spoken in the home. Some people define 'Hispanic' as 'Spanish surname.' They may be of Spanish origin, but well integrated into Anglo society. We don't have to worry about them as much in testing.

The current/desired is a good format.

Re: Rapport Building: Should always be done anyway.

SLD? or LD, is this a label used in your area? We use LD here, I don't know what you mean by specifically learning disabled.

Statistician: Under the ASSESSMENT PROCESS section, you do not make clear the idea that there are standard assessment procedures, and that you are interested in the modifications and alternatives made to these standard requirements.

The request for ENROLLMENT DATA section by use of a 'fill in the table' may be confusing to the respondent. More importantly, it has been shown that tables are inaccurate when completed by persons who may not understand the use of Kerms. Change the table format to simple questions, leaving a blank for the response on enrollment information.

Change the question regarding the estimated number of Cuban-Americans, Puerto Ricans or Mexican-Americans to ask for an estimated percentage in each subculture.

Clarify what is meant by modifications or alternatives.

The use of closed ended question with ordered choices is easy to tabulate, code and apply descriptive statistics.

Why not do a complete enumeration frame? If you have the money, and thetime there is no reason you would sample. You are describing phenomena not yet described in the literature.

State Supervisor of Special Education, responsible for programs whose population includes students of limited English speaking abilities.

The questionnaire gives one the feeling that 'ethnicity' is positively related to nonbiased assessment. I don't think your research questions lead you to ask the question of ethnicity. Frankly, it seems your hypotheses are too obvious. I think you should omit the questions. I don't understand some of your terms for example, what do you mean by local norms and the addition of points to the obtained scores?

Group II

University Professor in Psychology and Puerto Rican

The word 'Hispanic' connotes a firm alliance with Spain, check if 'Latinos' is not better. The Spaniards tend to stress the OLD word e.g., England to the colonies.

What types of differences do you see among the three sub-cultures of Cuban-American, Puerto Ricans, and Mexican-Americans? Do they have different needs, cultural or language differences, and how about the South Americans, Dominicans, etc.?

The term 'Exceptional' connotes gifted to most folks in New York.

You may want to check on the IQ tests used for their 'appropriateness' due to cultural biases etc. I also don't understand the concept of, addition of points to the obtained scores. Perhaps it is some hidden language among the Special Education folks nor do I understand 'local norms.' You ought to check on local norms for Latinos, for Latinos have been in the U. S. for varying amounts of time, thereby with varying degrees of language fluency and acculturation. Do the norms used reflect this?

What do you mean by 'culture-fair' tests? Are they valid and reliable?

Home visits are funny, evenings visits during dinner tend to be like 'plays' put up for others, and then the week-end visits are another type of behavior. A more comprehensive visit (more time over time) would lead to more data on the students' status.

Why not ask if there is an interview with the client?

Tri-lingual Psychologist

I'd be interested to know what tests they use for culture-fair instruments.

The area under composition of decision making committees should yield some interesting information.

The enrollment data section is very good, can't wait to see the results.

The parent participation section is important. Overall the questionnaire looks great! Concise, comprehensive, yet covers everything.

Multi-lingual Psychologist and Cuban-American

I see no need for any substantive changes, good luck!

Administrator of Educational Programs, Researcher and Mexican-American

The letter and questionnaire as written are very good; however, you may want to look at the following items: The term 'Hispanic' will probably be more acceptable by the groups you are trying to identify. In some cases, depending on what section of the country you are in, the word 'Latino' will be more appropriate. If possible in the first part you may want to point out if you are going to use the term 'Hispanic' or the other term 'Latino', or state that both will refer to the same thing . . . in your cover letter you may want to specify that there are more than only these three groups that you are interested in, because in the areas where these questionnaires will be mailed, you may have other Hispanic groups such as persons from Central and South America. You may want to take into consideration if you want these persons included.

The word minority should be . . . language minority. The term 'Mexican background' gives me concern in that you may want to know about the Mexican-American that has Mexican origin (the child is born in the U. S., but the father and/or mother were born in Mexico), or if the family was all born in in Mexico and has moved to the U. S. to live, the same with the Puerto Rican and Cuban groups.

Director of Bilingual-Bicultural Education for Puerto Rican Students

In order to receive the 'summary of results,' you must make a separate slip for mailing.

The question regarding an estimated percentage of students who fall into the three subgroups may be difficult to ascertain for a school district, as the individual records with teachers' information may need to be checked. Generally, they are counted as 'Hispanics.'

Under the question regarding use of culture-fair tests, whose criteria of culture-fair is being considered? The district's or the researcher's?

Under the question regarding a visit to the home of the Hispanic student . . . 'Who speaks Spanish or not?' Do you mean a visit by a bilingual non-professional such as a teacher-aide home liaison, community representative type person?

Section B Enrollment Data--Excellent section. Districts will be assessing themselves as well as answering.

In general it is well done . . . congratulations!

Group III

Executive Administrator of Special Education: Responsible for the development of nondiscriminatory assessment procedures for limited English speaking children who represent 50 different languages (user and potential participant in the study).

You need more definition regarding the term 'assessment' and the subsequent 'educational decisions.' Do you also include the NRT, CRT, group vs. individual tests, etc.? What is the difference between Local School District and COOP. I think you should change your 'YES, NO, and NOT CERTAIN' to 'ALWAYS, SOMETIMES, OR NEVER.' Otherwise no changes are suggested.

Supervisor of Special Education: For a Local Education Agency who serves several hundred students of limited English speaking ability. (User of the data.)

I think a Supervisor/Administrator of Special Education could complete your questionnaire. I wonder about your definition of Latino. We have many El Salvadorians, children from Santiago, Peru, and not many Mexican-Americans, Puerto Ricans or Cubans. Do you think 'Latinos' is better than the use of 'Hispanic?' We use Hispanic from the Federal code. Good Luck.

Director of Special Education and Mexican-Americans. (Potential participant in the study and user of data.) The questionnaire was completed with no apparent difficulties. In general, he found it easy to complete, and he had access to the required data.

Interagency Director of the Florida State Department of Education, of Hispanic background: (User of data.)

We have had a change in the State Directory of Exceptional Children, so if you wish, you may use my name in your cover letter, to indicate the cooperation of the State of Florida in your study. In Florida we use the term 'exceptional' student not 'handicapped' or 'special.'

You must personalize your cover letter so as to identify with the problems in Florida, especially the influx of the Cuban students with handicaps.

I have no difficulty with the questions; however, I have all the data from your Section B, should you not receive it from the Directors of Exceptional Children in Florida.

Use the term 'staffing' or 'eligibility' not 'placement.' Please consider adding a question about Due Process in Spanish and a question regarding the inflexibility of the State Regulations for Assessment.

Supervisor of Special Education and Puerto Rican Background: (User of data.)

First as we have discussed, this area is relatively untouched and really in need of a description such as you plan.

On page 1: Your direction--and explanations are very clear. I can't foresee any misunderstandings.

Page 2: Section A--The breakdown of Hispanic enrollment would be difficult, but not impossible. It would require district census data that may be difficult for a Special Education administrator to obtain (or at least an extra step that they may not want to take).

Section B-1. May find discrepancy between policy re: use of test and actual use of test. Also, the availability of a language dominance test may be a factor in smaller divisions with low incidence of Hispanic students.

Page 3:2. It may be helpful to define 'ethnicity' and 'language'. Ethnicity and language are two very different factors. Make this two questions (one for ethnicity match, one for language match) or making the question as is 'ethnicity and/or language.'

I have a problem with 'Spanish' as a generic term. A Spanish language intelligence test normed on a Puerto Rican sample is not as valid for Mexican-Americans. There is a big vocabulary difference in language issue alone (e.g., the common word for 'bus' in Puerto Rican is profane in Mexico).

This question was not clear to me (the addition of points to the obtained scores).

All in all you've developed a really comprehensive instrument that touches on many of the important issues and problems in serving the Hispanic population. I agree that this should be only a jumping off point for more in-depth research and evaluation. You'll be cited for years to come! Good luck.

APPENDIX C

INITIAL COVER LETTER, FIRST AND SECOND FOLLOW-UP LETTERS, MAILED TO 157 ADMINISTRATORS OF SPECIAL EDUCATION (SAMPLES)

OSU

The Ohio State University

Academic Faculty
of Educational Administration

29 West Woodruff Avenue
Columbus, Ohio 43210

Phone 614 422-7700

September 5, 1981

I am certain that you are concerned, as many of us are, with the development of quality education programs for handicapped children of limited English speaking ability. The heterogeneity of the Mexican-American population, coupled with the frequent migration of Mexican students into Texas, make the implementation of such quality programs a sobering challenge. There is some controversy regarding the appropriate assessment procedure to use in evaluating the minority language student. I am interested in better understanding the assessment process your local school district or COOP has designed for the Latino handicapped student. I am also attempting to describe, more accurately, the proportionate number of Cuban-American, Puerto Rican and Mexican-American students enrolled in Special Education and Gifted programs. For this reason, every attempt is being made to keep data separate on these three subgroups.

As a Supervisor of Special Education in the Virginia Department of Education, I work closely with local Special Education Directors, and have observed their persistence in seeking appropriate methods to assess the minority language student. I have contacted Don L. Partridge, Associate Commissioner for Special Education, Texas Education Agency, for names of professionals who are knowledgeable in the area of special education for the Latino student. For this reason, I am directing the enclosed questionnaire to you. Questionnaires are coded so that NO INDIVIDUAL OR LOCAL SCHOOL DISTRICT will be identified. My primary interest is to note whether students are of Cuban, Puerto Rican or Mexican background.

This research was developed under a grant from the U. S. Department of Education, awarded to this researcher and major advisor at The Ohio State University. Results will be disseminated through publications and selected national and state conferences. Each participant will receive a summary of results by completing the enclosed postcard, designed to assure anonymity.

Please take time to share your experiences and knowledge in the area of Special Education for the Latino student, by completing this questionnaire. I thank you very much for your assistance.

Sincerely yours,

Lori Bell-Mick, Supervisor
410 Ridgeview Drive
Blacksburg, VA 24060

OSU

The Ohio State University

Academic Faculty
of Educational Administration
29 West Woodruff Avenue
Columbus, Ohio 43210
Phone 614 422-7700

September 30, 1981

The purpose of the questionnaire I mailed to you in early September was to correct some of the information appearing in the media and the literature regarding Latino handicapped and gifted students. For example, we are often accused of over-enrolling Latino students in Special Education, and under-enrolling them in programs for the Gifted. In the State of Texas, however, I am finding that Latino students compose about 26 percent of the total school enrollment, and also make up about 26 percent of the total enrollment in programs for the learning disabled. Apparently you have developed some effective procedures for the determination of eligibility. Your sharing of that information would be most helpful to the study.

To date, I have not received your completed questionnaire. In the event that it has been misplaced, a replacement is enclosed. Please feel free to have members of your staff provide the information for your district. Again, I assure COMPLETE CONFIDENTIALITY.

Thank you again for taking time to share your experiences in the area of assessment for the Latino student.

Sincerely yours,

Lori Bell-Mick
410 Ridgeview Drive
Blacksburg, VA 24060
(703) 951-7772

OSU

The Ohio State University

College of Education
Academic Faculty
of Educational Administration
301 Ramseyer Hall
29 West Woodruff Avenue
Columbus, Ohio 43210
Phone 614 422-7700

November 5, 1981

As a Supervisor in the Virginia Department of Education, I have for several years, considered Texas a leader in the area of nondiscriminatory assessment for the Mexican-American student; an opinion based principally on the quality publications emerging from your State Department of Education (in Spanish), and research conducted at your Universities.

For this reason, in early September, a questionnaire was mailed to you for the purpose of collecting information on the evaluation procedures your Local Education Agency (LEA) currently implements for the Hispanic student. To date, I have not received your completed questionnaire. The information you can provide regarding your experiences and knowledge of this important area, is critical to the accurate reporting of the results of this national survey.*

In the event that the questionnaire has been misplaced, a replacement is enclosed. Again, I assure you COMPLETE CONFIDENTIALITY. Thank you for your attention to this important issue.

Sincerely yours,

Lori Bell-Mick, Supervisor
Virginia Department of Education
410 Ridgeview Drive
Blacksburg, VA 24060

APPENDIX D

*QUESTIONNAIRE, POSTCARD FOR "SUMMARY OF RESULTS",

AND THANK YOU POSTCARD

*Questionnaire was made into booklet form and enclosed in a standard business envelope.

A QUESTIONNAIRE FOR COLLECTING INFORMATION ON LATINO STUDENTS IN SPECIAL EDUCATION AND GIFTED PROGRAMS AND MODIFICATIONS IMPLEMENTED IN THE ASSESSMENT PROCESS

This questionnaire is designed to collect information about the number of Mexican-American, Puerto Rican and Cuban-American students in certain educational programs and any modifications made during the assessment process. Other areas to be examined include enrollment data and parent participation. All responses are STRICTLY CONFIDENTIAL.

Two scales are designed for your responses:

SCALE I

1. ALMOST ALWAYS: Occurs 81-100% of the time
2. FREQUENTLY: Occurs 61-80% of the time
3. OCCASIONALLY: Occurs 41-60% of the time
4. SELDOM: Occurs 21-40% of the time
5. ALMOST NEVER: Occurs 0-20% of the time

SCALE II

1. YES
2. NO
3. NOT CERTAIN

This research is partially funded by the U.S. Department of Education under Student Research Grant #713521, awarded to this researcher and major advisor at The Ohio State University. However, no official endorsement of either the U.S. Department of Education or the Virginia Department of Education should be inferred.

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CODE NUMBER _____

GENERAL INFORMATION

Date _____

Your official title_____

SECTION A: ASSESSMENT PROCESS

In this first section my purpose is to learn more about the assessment procedures your district or COOP has developed for the *Latino student. In general, assessment is the collection of information for the purpose of making educational decisions. This information usually includes health, sociocultural and psychoeducational data. In addition to these standard procedures, several modifications and alternatives have been used in the assessment of the Latino student. Some of these practices are listed below. Please indicate with what frequency these practices are currently implemented in your local school district or COOP. (It is assumed that modifications are made based on the dominant language or the student).

1. The use of pluralistic assessment instruments; one example might be the System of Multicultural Pluralistic Assessment (SOMPA)
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

2. The use of criterion-referenced measures
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

3. The use of culture-fair tests
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

4. The use of a language dominance or language proficiency test
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

5. Provide opportunity for student to increase test-taking skills prior to assessment
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

6. The use of available intelligence tests in Spanish
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

7. The use of an interpreter during the actual testing situation
   - ☐ ALMOST ALWAYS
   - ☐ FREQUENTLY
   - ☐ OCCASIONALLY
   - ☐ SELDOM
   - ☐ ALMOST NEVER

*The U.S. Census Bureau recently adopted the term "Hispanic" to include any person of Mexican, Puerto Rican, Cuban, Central, South American or other Spanish origin, regardless of "race." The word LATINO will be used in this questionnaire, with essentially the same meaning.

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8. The matching of examiner to examinee in ethnicity or language
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

9. The use of nonverbal subscales from more comprehensive tests
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

10. The use of local ethnic norms for scoring
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

11. If State Regulations regarding assessment procedures were made more flexible, would your school district or COOP change any of your current assessment procedures?
- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

12. (OPTIONAL) IF YES, what changes would your school district make?

_____
_____
_____
_____
_____
_____
_____

When collecting information on the LATINO student, please indicate how often your school district or COOP implements the following practices:

13. A classroom observation is made by a professional of Latino background
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

14. The referral (screening) committee includes a member of Latino background
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

15. The multidisciplinary committee (sometimes called admissions, staffing or support team) includes a member of Latino background
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

16. The Individualized Education Progam (IEP) committee includes a member of Latino background, other than the parent or student
- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

17. Perhaps your local school district or COOP has developed a practice not listed above, which has proven effective in the assessment process of the Latino student. If so, please share this information in the space below (or call me collect at 703-951-7772 after 5 pm EST).

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SECTION B: ENROLLMENT DATA FOR FISCAL YEAR 1980-81

This section is a critical part of the questionnaire, inasmuch as the fundamental difference in this survey and more comprehensive national surveys is the attempt to determine if there are differences in the number of handicapped and gifted students who are Cuban-American, Puerto Rican or Mexican-American. I greatly appreciate your cooperation in completing this section. Please ESTIMATE ONLY.

18. Total school enrollment in your local school district_____(include non-handicapped and handicapped)

If your districts COOP, please give total school enrollment which the COOP serves (non-handicapped and handicapped)_____

19. Total LATINO enrollment in your local school district_____(Include non-handicapped and handicapped)

If your districts COOP, please give total LATINO enrollment which the COOP serves (non-handicapped and handicapped)_____

20. Of your total LATINO enrollment (non-handicapped and handicapped) please ESTIMATE what percentage of students would fall into the following subgroups:

Cuban-Americans _____%

Puerto Ricans _____%

Mexican-Americans _____%

Central or South Americans _____%

Other Spanish Origin _____%

21. Total Special Education enrollment in your local school district_____or if COOP, total Special Education enrollment in COOP_____

22. Total number of LATINO students in Special Education_____(ALL EXCEPTIONALITIES, INCLUDING SPEECH)

23. Total number of gifted or talented students _____

24. Total number of LATINO gifted or talented students_____

25. Total number of specific learning disabled students _____

26. Total number of LATINO specific learning disabled students _____

27. Total number of educable mentally retarded students _____

28. Total number of LATINO educable mentally retarded students _____

SECTION C: PARENT PARTICIPATION

In this final section, I am seeking information to determine if there are any differences in the levels of participation of Cuban-American, Mexican-American or Puerto Rican parents.

29. Are parents of handicapped students invited to attend the multidisciplinary committee meeting?

- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

30. If YES, how frequently do Latino parents attend?

- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

31. How frequently do Latino parents attend the Individualized Education Program (IEP) committee meetings?

- ☐ ALMOST ALWAYS
- ☐ FREQUENTLY
- ☐ OCCASIONALLY
- ☐ SELDOM
- ☐ ALMOST NEVER

32. Has your State Department of Education developed a handbook on the rights and responsibilities of parents of handicapped children, written in Spanish?

- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

33. Has your local school district or COOP developed relevant information for Latino parents of handicapped children, written in Spanish?

- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

34. Has your State Department of Education developed due process guidelines, written in Spanish?

- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

35. Has your local school district or COOP developed due process information for parents of Latino students, written in Spanish?

- ☐ YES
- ☐ NO
- ☐ NOT CERTAIN

I would appreciate any further comments you might like to make regarding assessment procedures for the Latino handicapped student, or any similarities and differences you may have noted if you are working with students of more than one of the three Latino subgroups described in this questionnaire.

Thank you very much for the time you have taken to share your experiences and knowledge in the area of special education for the Latino student. Your contribution is greatly appreciated.

INSERT

For respondents from the Commonwealth of Massachusetts, please complete questions below, in place of the corresponding numbers in Section B. All responses are STRICTLY CONFIDENTIAL. No person or local education agency will be identified.

25. Total number of students enrolled in 502.2 programs _____

26. Total number of LATINO students enrolled in 502.2 programs _____

27. Total number of students enrolled in 502.3 programs _____

28. Total number of LATINO students enrolled in 502.3 programs _____

In order to receive a summary of the results of this study, please indicate a mailing address below (your name will only be used for mailing purposes).

NAME_____

STREET ADDRESS_____

CITY_____

STATE_____

ZIP CODE_____

A little over a week ago, a questionnaire seeking information on programs for Latino handicapped students was mailed to you. If you have already completed and sent the survey to me, please accept my sincere thanks. If not, would you do so soon? Because the survey was sent to only those local school districts who serve Latino students who are predominately of Puerto Rican, Cuban or Mexican background, it is very important that your district also be included in the results of the study.

If by chance you did not receive the survey, or misplaced it, please call me collect at 703-951-7772, and I will mail you one today.

Sincerely,
Lori Bell-Mick
410 Ridgeview Drive
Blacksburg, Va.

APPENDIX E

SUMMARY PERCENTAGE TOTALS FOR EACH ITEM

Summary Percentage Totals Reflecting Responses Taken Directly from Items on Questionnaire; Firstly, Hispanics, then Subcultures[b]

Question	Responses[b]	Hispanics (631,425) (N = 101)	Mexican-American (403,000) (N = 76)	Puerto Rican (115,000) (N = 14)	Cuban (93,000) (N = 4)
1. The use of pluralistic assessment instruments; one example might be the System of Multicultural Pluralistic Assessment (SOMPA)	AA	27%	30%	36%	0%
	F	16	13	21	25
	O	22	22	14	75
	S	19	13	14	0
	AN	20	20	15	0
2. The use of criterion-referenced measures	AA	46%	55%	29%	0%
	F	20	14	14	100
	O	19	16	36	0
	S	08	06	14	0
	AN	07	08	07	0
3. The use of culture-fair tests	AA	28%	33%	21%	0%
	F	26	26	22	75
	O	17	13	36	0
	S	09	07	14	0
	AN	12	12	07	25
4. The use of a language dominance or language proficiency test	AA	75%	80%	64%	75%
	F	16	15	14	25
	O	06	04	22	0
	S	0	01		0
	AN	02			0

Question	Responses[b]	Hispanics (631,425) (N = 101)	Mexican-American (403,000) (N = 76)	Puerto Rican (115,000) (N = 14)	Cuban (93,000) (N = 4)
5. Provide opportunity for student to increase test-taking skills prior to assessment	AA	7%	29%	0%	0%
	F	12	21	14	0
	S	28	28	21	50
	O	24	11	36	50
	AN	27	09	29	0
6. The use of available intelligence tests in Spanish	AA	28%	23%	64%	50%
	F	20	22	14	25
	O	12	11	15	25
	S	13	14	07	0
	AN	24	26	0	0
7. The use of an interpreter during the actual testing situation	AA	36%	37%	57%	0%
	F	14	17	07	0
	S	24	21	29	50
	O	07	08	0	25
	AN	18	16	07	25
8. The matching of examiner to examinee in ethnicity or language	AA	40%	38%	50%	25%
	F	21	17	29	50
	O	07	07	14	0
	S	13	14	0	25
	AN	18	22	07	0
9. The use of nonverbal subscales from more comprehensive tests	AA	43%	46%	43%	25%
	F	26	26	21	75
	O	19	16	29	0
	S	08	08	07	0
	AN	03	03	0	0

Question	Responses[b]	Hispanics (631,425) (N = 101)	Mexican-American (403,000) (N = 76)	Puerto Rican (115,000) (N = 14)	Cuban (93,000) (N = 4)
10. The use of local ethnic norms for scoring	AA	04%	05%	0%	0%
	F	13	10	07	25
	O	12	11	21	25
	S	24	20	43	0
	AN	45	51	29	50
11. If State regulations regarding assessment procedures were made more flexible, would your school district or COOP change any of your current assessment procedures?	YES	25%	22%	43%	25%
	NO	32	36	14	50
	NOT CERTAIN	37	37	43	25
12. (Optional) If YES, what changes would your school district make?					
13. A classroom observation is made by a professional of Latino background	AA	25%	24%	29%	25%
	F	29	25	28	50
	O	21	24	14	25
	S	11	11	22	0
	AN	12	14	07	0
14. The referral (screening) committee includes a member of Latino background	AA	56%	59%	43%	0%
	F	25	25	22	50
	O	10	08	21	25
	S	05	03	14	25
	AN	03	04	0	0
15. The multidisciplinary committee (sometimes called admissions, staffing or support team) includes a member of Latino background	AA	54%	56%	43%	25%
	F	23	24	22	50
	O	13	13	21	0
	S	04	01	14	25
	AN	03	04	0	0

Question	Responses[b]	Hispanics (631,425) (N = 101)	Mexican-American (403,000) (N = 76)	Puerto Rican (115,000) (N = 14)	Cuban (93,000) (N = 4)
16. The Individualized Education Program (IEP) committee includes a member of Latino background, other than the parent or student	AA	55%	54%	43%	25%
	F	20	24	07	25
	O	16	16	29	25
	S	05	01	21	25
	AN	02	03	0	0
17. (Optional) Perhaps your local school district or COOP has developed a practice not listed above, which has proven effective in the assessment process of the Latino student. If so, please share this information in the space provided at the right (or call me collect at . . .					
Section B: Enrollment Data Section C: Parent Participation					
29. Are parents of handicapped students invited to attend the multidisciplinary committee meeting?	YES	95%	95%	100%	100%
	NO	01	01	0	0
	NOT CERTAIN	02	01	0	0
30. If yes, how frequently do Latino parents attend?	AA	25%	32%	0%	25%
	F	43	42	50	25
	O	18	14	21	50
	S	10	07	29	0
	AN	02	03	0	0

Question	Responses[b]	Hispanic (631,425) (N = 101)	Mexican-American (403,000) (N = 76)	Puerto Rican (115,000) (N = 14)	Cuban (93,000) (N = 4)
31. How frequently do Latino parents attend the IEP committee meetings?	AA	30%	38%	0%	25%
	F	34	34	36	25
	O	24	20	35	50
	S	09	05	22	0
	AN	01	02	0	0
32. Has your State Department of Education developed a handbook on the rights and responsibilities of parents of handicapped children, written in Spanish?	YES	68%	70%	93%	0%
	NO	18	17	0	50
	NOT CERTAIN	14	13	07	50
33. Has your local school district or COOP developed relevant information for Latino parents of handicapped children, written in Spanish	YES	79%	79%	93%	100%
	NO	17	18	0	0
	NOT CERTAIN	01	0	07	0
34. Has your State Department of Education developed due process guidelines, written in Spanish?	YES	65%	63%	86%	50%
	NO	13	13	07	25
	NOT CERTAIN	19	21	07	25
35. Has your local school district or COOP developed due process information for parents of Latino students, written in Spanish?	YES	67%	63%	93%	100%
	NO	22	25	0	0
	NOT CERTAIN	06	07	07	0

[a] Includes three subcultures and 7 other LEAs of "Other" Hispanic subculture.

[b] May not total 100%, if not remaining percent did not respond to item.

APPENDIX F

PARENTAL INVOLVEMENT ON DECISION-MAKING COMMITTEES

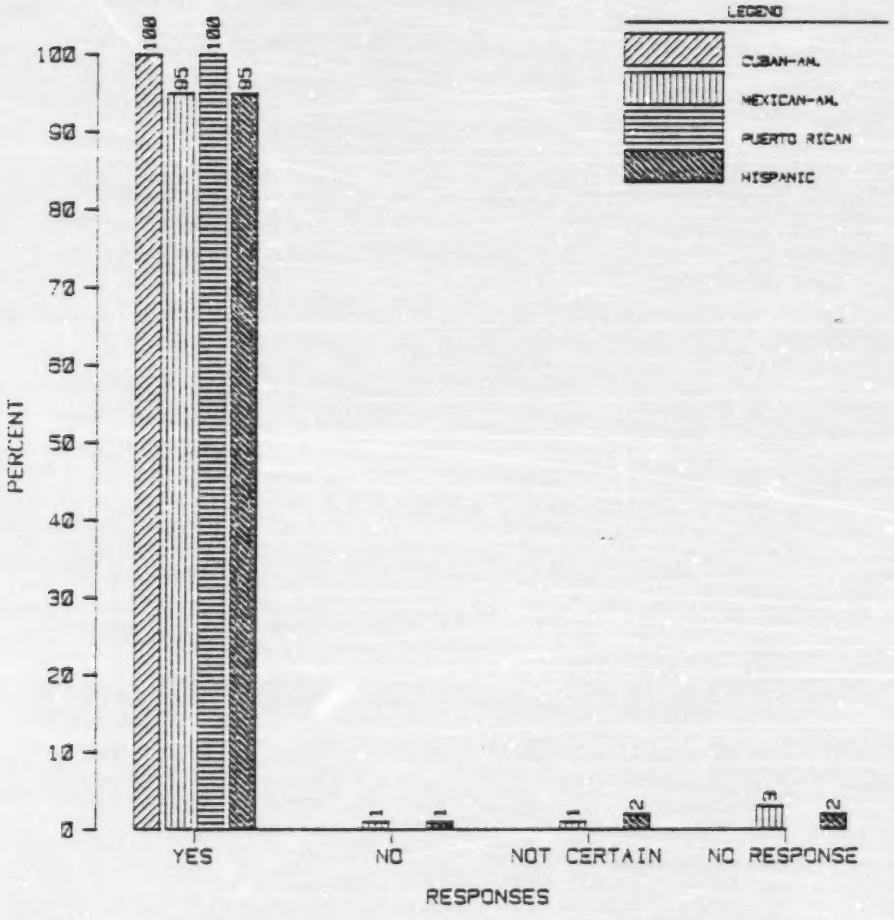

Figure 19. Are parents invited to the multidisciplinary committee meeting?

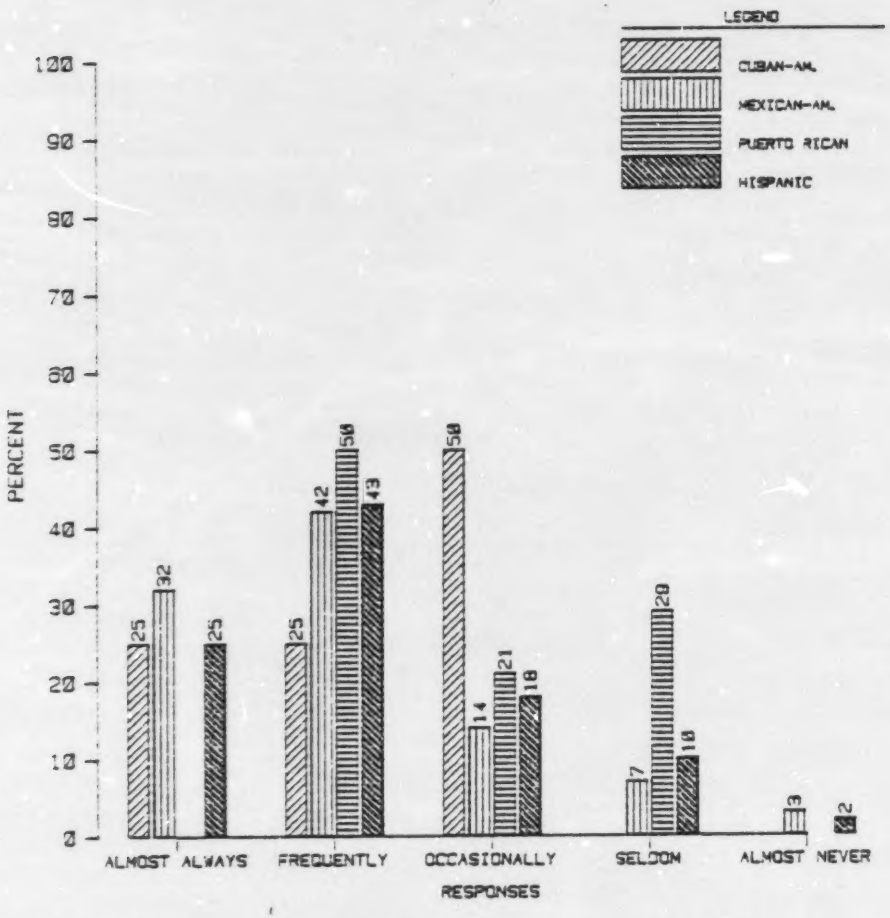

Figure 20. With what frequency do Hispanic parents attend the multidisciplinary committee meeting?

APPENDIX G

STATE AND LOCAL DEVELOPMENT OF INFORMATION

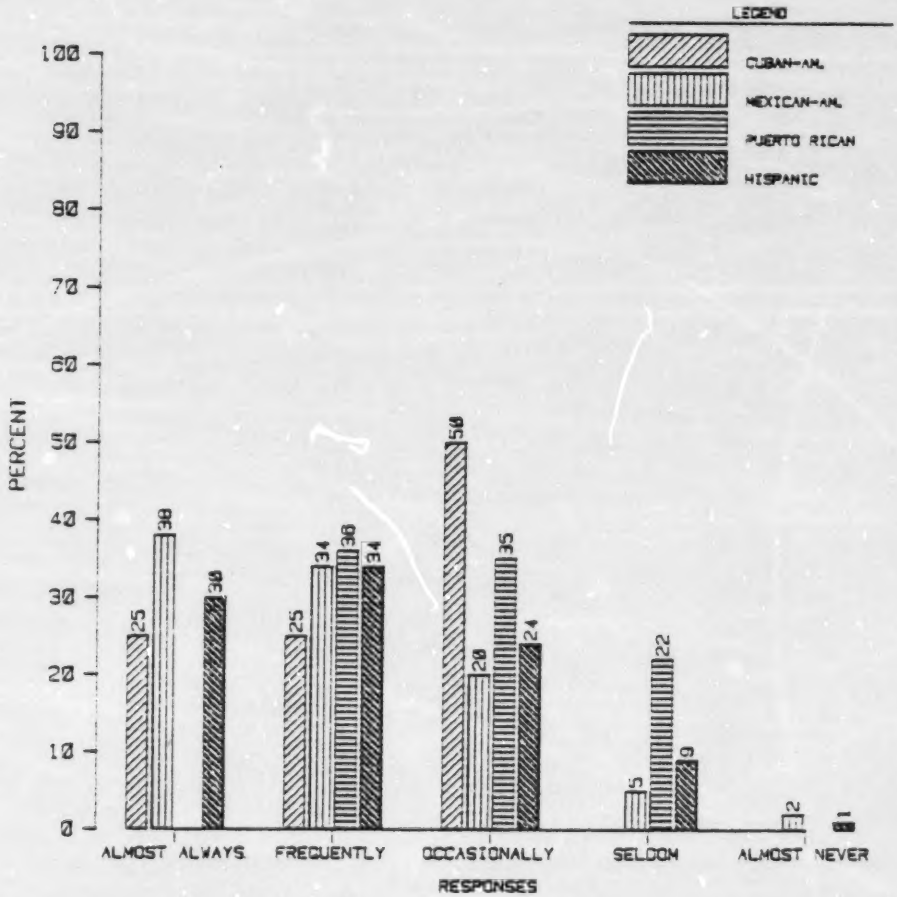

Figure 21. With what frequency do Hispanic parents attend IEP committee meetings?

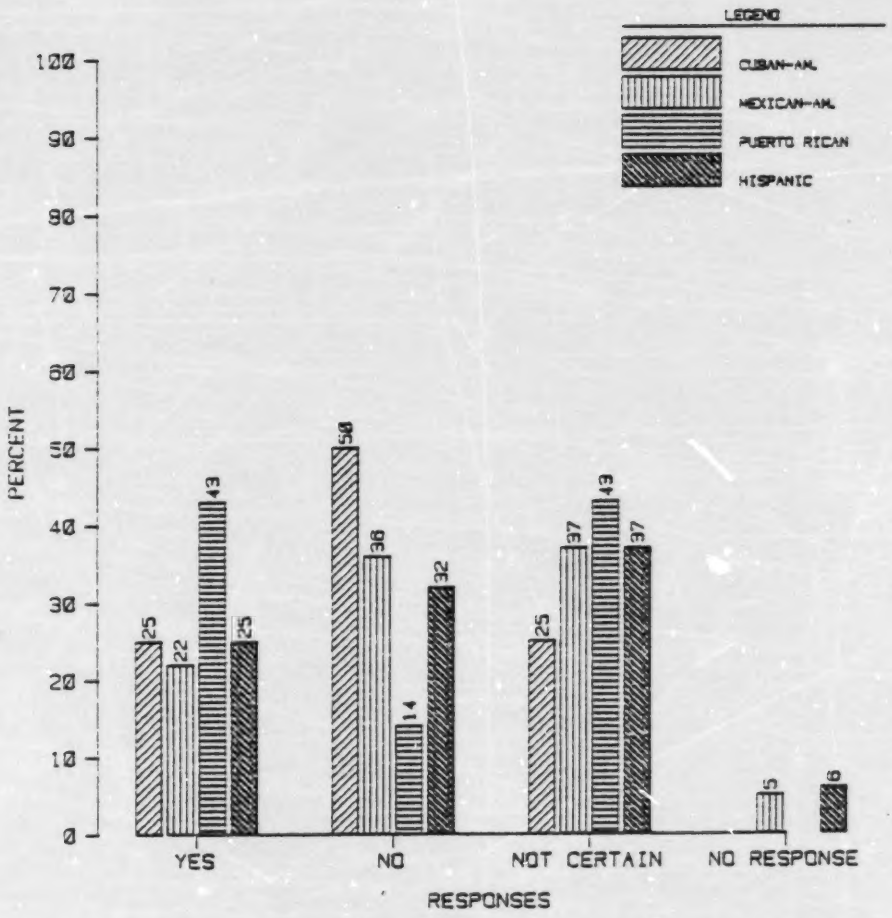

Figure 22. If state regulations were more flexible, would you change your current assessment procedures?

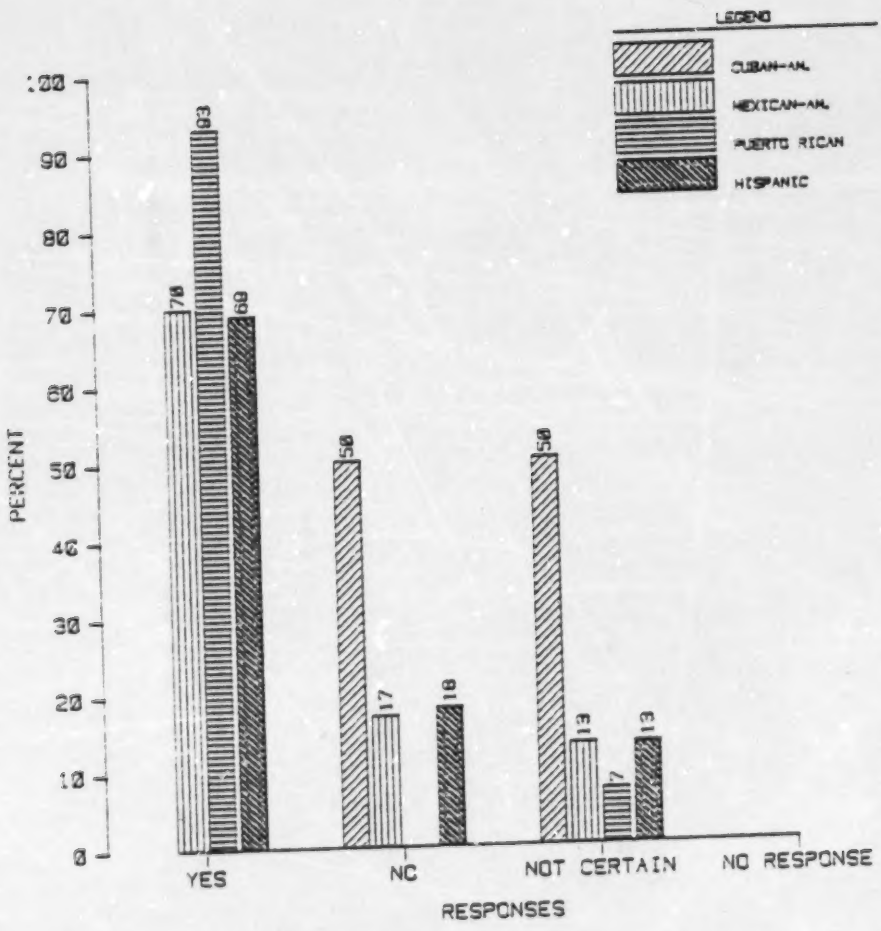

Figure 23. Has SEA developed information of the rights of parents and children written in Spanish?

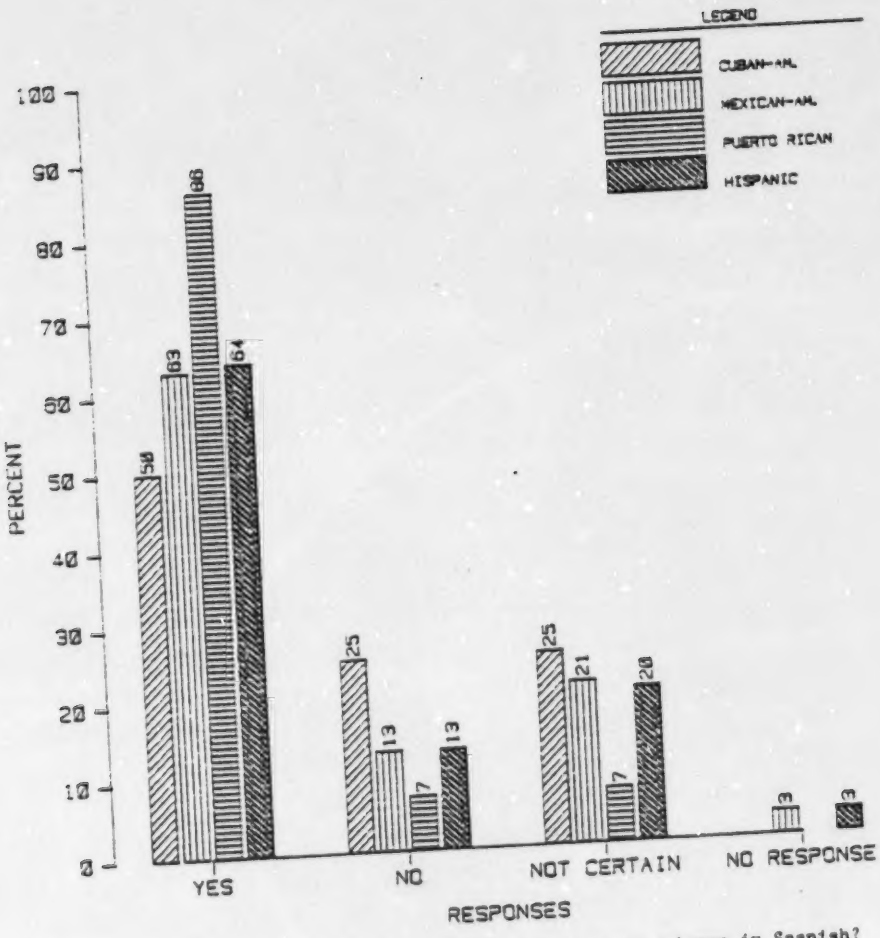

Figure 24. Has SEA developed due process guidelines written in Spanish?

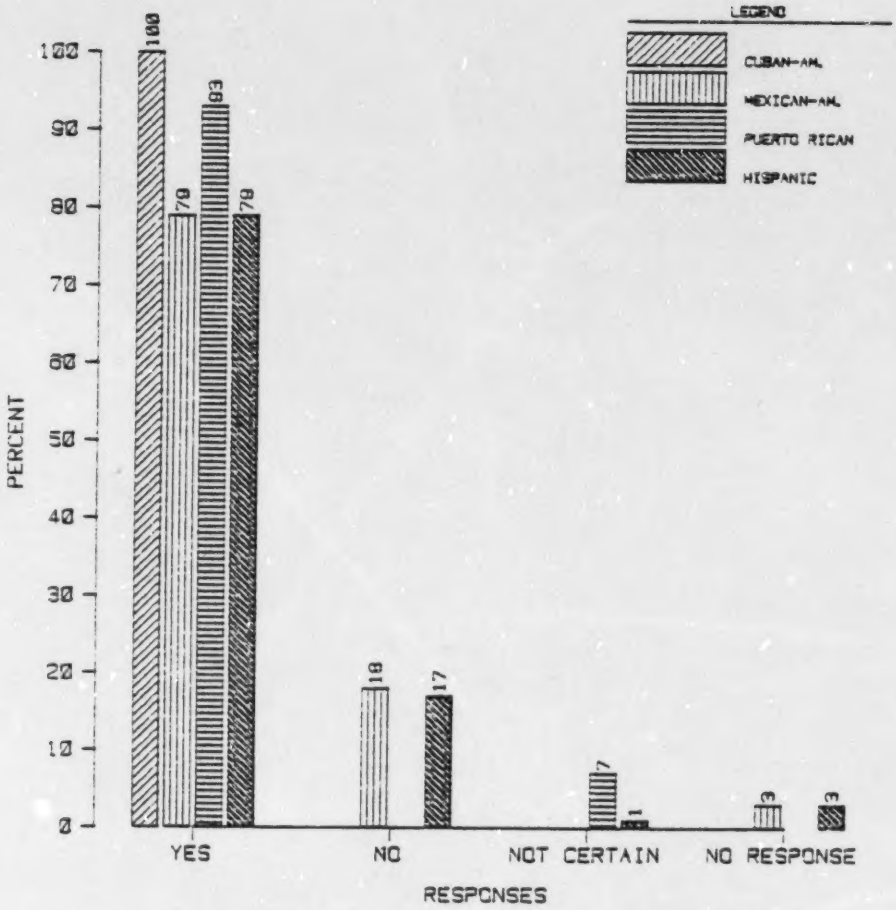

Figure 25. Has LEA developed information on the rights of parents and children written in Spanish?

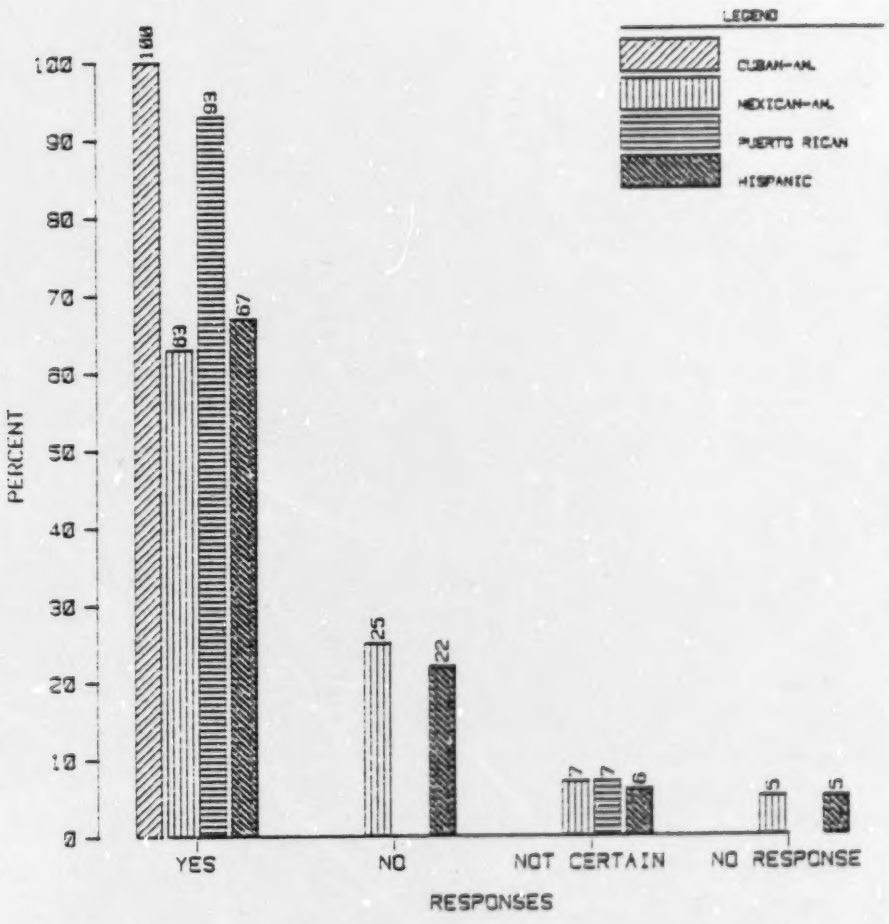

Figure 26. Has LEA developed due process guidelines written in Spanish?

APPENDIX H

VERBATIM COMMENTS FROM RESPONDENTS

Texas

"We always make a home visit as part of testing process . . ."

"We have a bilingual staff . . . and provide inservice to those who are not bilingual. We need a Bilingual diagnostician."

"Unless locally normed the instrument is just as inappropriate as using local dialect through an interpreter."

"The testing (examiner) must be very careful in interpretation."

"The testing 'A Bilingual adult is trained to interview parents usually in the home.'"

"We prefer Hispanic not Latino."

"We are very interested in your study."

"Testing is administered in English and Spanish 'Latino' or 'Others' with an understanding and experiences of socio-cultural language factors and the relationship to education is far more important than a 'Latino' from a middle class . . . use Raven, SOMPA, and local norms."

"Mostly all of our supportive professional personnel Bilingual which facilitates the assessment process."

"We've developed local norms for Mexican-American children, Black and Anglo on adaptive behavior."

"There needs to be better positive assurance that all testing instruments are given in Spanish if necessary. We need more Latino staff members."

"We always are careful to use Spanish if necessary."

"We are especially proud of our assessment procedures."

"We have a parent conference in Spanish . . . and Bilingual diagnosticians to interpret the test results."

Massachusetts

"There is a need for appropriate instruments. We have most of what is available, but it is still questionable."

"Spanish version of the WISC is used here and translated into Spanish in Puerto Rico."

"Dialect differences made it extremely difficult to match examiner with student. There exists a great need for additional language dominance instruments reflective of those differences."

Florida

"Good Study."

"We need better instruments to measure intelligence and achievement by Latinos."

"It is interesting that the only Latinos in our county are more American than Americans. Although they will work with the Spanish speaking students, they are anti-bilingual programs and anti ESOL. You need to consider that non-Latinos can be more sensitive to student needs than Latinos are at times."

New York

"We have Hispanic outreach workers who form a liaison with parents and office. These outreach workers frequently accompany the parents and children to various agencies, translate when parents are unable to bring an interpreter to important meetings, regarding their child's education, and also go to the child's home when parents are unable to present themselves in person."

"The major problem is that there really are not adequate tests for New York City for or to use with Latinos: In district we have four social workers. We use observation both informal and formal testing, and local norms, 'I personally believe that Latinos are underrepresented in EMR and TMR, programs and overrepresented in SLD or neurologically impaired . . . we do our best to recognize prejudicial referrals or assessments."

New Mexico

"A very few of our Spanish American parents read or write Spanish, so we are using English."

"In special education we have a language program to try to help students, and also a Bilingual program."

"I don't believe I have legal permission to answer enrollment section."

"Please note that this questionnaire does not fit our district's situation. Our students have Spanish names, but they speak very little Spanish. Therefore, our information may not help you."

"We do not get a frequent migration of Mexican-American or any other minority group. The students we deal with are from a Spanish background and culture that has been established here since the 16th century, students are bilingual or mostly English monolingual."

"We have a Bilingual diagnostician."

"The main problem we have had is that many children do not have a firm grasp of either language. It is very hard to test a student without a strong background in English or Spanish."

"We use Leiter International Performance Scale for all PHLOTF students."

"Gifted tests are included, our range and cut off numbers are currently being revised to meet the needs of students in our areas."

"The use of good adaptive behavior scales, language assessment in both languages is how we do this."

"Our district tests students in their dominant language to determine this we use the Home Bilingual Usage Estimate by Skoczylas. Most of our forms are in English and Spanish, favored by SEA. Many of the Hispanic parents seem to take little interest in their student's testing or placement."

"A Spanish-dominant student must be tested by a Bilingual diagnostician."

"Few of our Spanish parents can read Spanish."

"Due process is provided with an interpreter."